STATE OF NEW HAMPSHIRE

SITE EVALUATION COMMITTEE

October 26, 2017 - 2:06 p.m. DAY 52 49 Donovan Street Afternoon Session ONLY Concord, New Hampshire

{Electronically filed with SEC 11-09-17}

SEC DOCKET NO. 2015-06 IN RE:

NORTHERN PASS TRANSMISSION -EVERSOURCE; Joint Application of Northern Pass Transmission LLC and Public Service of New Hampshire d/b/a

Eversource Energy for a

Certificate of Site and Facility

(Hearing on the Merits)

PRESENT FOR SUBCOMMITTEE/SITE EVALUATION COMMITTEE:

Chmn. Martin Honigberg Public Utilities Comm. (Presiding Officer)

Cmsr. Kathryn M. Bailey Dir. Craig Wright, Designee Dept. of Enrivon.Serv. Christoper Way, Designee

Public Utilities Comm. Dept. of Business &

William Oldenburg, Designee

Economic Affairs Dept. of

Patricia Weathersby

Transportation Public Member

ALSO PRESENT FOR THE SEC:

Michael J. Iacopino, Esq. Counsel for SEC Iryna Dore, Esq. (Brennan, Caron, Lenehan & Iacopino)

Pamela G. Monroe, SEC Administrator

(No Appearances Taken)

COURT REPORTER: Cynthia Foster, LCR No. 14

I N D E X

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EXHIBITS

EXHIBIT ID	DESCRIPTION	PAGE NO.
NGO 35	Commonwealth Magazine article	
	October 12, 2017, National	
	Grid Calls Foul on Hydro-	
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JM 307	Study by ESAI Power LLC	46

1 PROCEEDINGS 2 (Hearing resumed at 2:06 p.m.) 3 PRESIDING OFFICER HONIGBERG: Mr. Reimers, 4 you may proceed. 5 CROSS-EXAMINATION 6 BY MR. REIMERS: Good afternoon, gentlemen. My name is Jason 7 Q I represent the Society for the 8 Reimers. 9 Protection of New Hampshire Forests, and I just 10 have a few questions for you today. 11 Do you have an understanding of the carbon 12 benefits of the Northern Pass Project compared to the carbon benefits of the Granite State 13 14 Power Link Project proposed by National Grid? 15 Α (Weiss) Explain what you mean by "do we have an 16 understanding." 17 Do you have an opinion or knowledge of the Q 18 comparable carbon benefits of those two 19 Projects? 20 (Weiss) We have not estimated the carbon impact Α 21 of projects other than the Northern Pass 22 Project. 23 When Les Otten was on the stand, Commissioner 0 24 Bailey asked him, quote, "Would it change your

1 opinion of the Project if the resource that will 2 be delivered over this line is currently being delivered to Ontario or New York so we've 3 4 already gotten the benefit of the carbon 5 reduction and we're just shifting it," end 6 That was the transcript for Day 44, AM, quote. page 68. So earlier today, you mentioned 7 shifting energy from one region to another. 8 9 I understand, am I correct in understanding that 10 whether that is happening in this case is an 11 unknown at this point? 12 Α (Weiss) I think that is a fair statement, yes. 13 At least we weren't able to completely 14 understand whether it would result in 15 incremental greenhouse gas emission reductions 16 or there would just be clean energy being 17 shifted from one market to another. 18 So how would you go about determining that? Q 19 (Weiss) I would seek sort of more clarity as to Α 20 what the sources of the clean energy are that 21 are being delivered over Northern Pass in this 22 case, and I think our testimony earlier in our 23 reports indicate that we're not entirely sure 24 what those sources are.

1 Mr. Otten answered Commissioner Bailey as 0 2 follows, quote, "Hypothetically, I would have to know whether this is a better route, whether 3 this is more efficient, whether it was going to 4 5 get the power closer to the customers, whether 6 it was going to benefit people, what coal plants 7 was it going to replace. Hypothetically, if you're just swapping one line for another, 8 9 hypothetically, you might change my opinion, but 10 from the knowledge that I have, this 1090 11 megawatts is not being consumed by the 12 marketplace and it will replace over 1000 13 megawatts of power that is fossil-based, "end 14 quote. 15 What is your opinion as to the accuracy of 16 Mr. Otten's statements or his believe that this 17 1090 megawatts is currently not being consumed 18 by the marketplace? 19 (Newell) I think that's a rephrasing of the same Α 20 question. We haven't been able to say 21 definitively. 22 And would you say the same to his belief that Q 23 the Northern Pass would replace over 1000 24 megawatts of power that is fossil-based?

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      Α
           (Weiss) Well, so, you know, I think that the
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          tricky part is there's a destination market part
          of it and there is the where does it come from
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           in some ways. So I think one can argue that
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          something close to that is true in terms of what
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          that power would displace in the destination
          market, but the carbon benefits would only be
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          equivalent to displacing a thousand, just call
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 9
          it 1090 megawatts of emissions-free,
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          substituting that for fossil generation.
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          are only the carbon benefits if you're not
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          increasing emissions elsewhere. In other words,
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          if that is really clean energy that is not
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          currently displacing carbon emissions elsewhere.
          So I think, you know, I could agree to some
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16
          extent with the second half with the might
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          displace 1000 membranes of fossil in the
18
          destination market, but --
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          But not overall?
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      Α
           (Weiss) But may not overall, correct.
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           (Newell) That would depend whether there's, in
      Α
22
           fact, incremental clean generation.
23
          Thank you. I don't have any further questions.
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               PRESIDING OFFICER HONIGBERG: Ms. Birchard?
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CROSS-EXAMINATION

BY MS. BIRCHARD:

Q Yes. Thank you. Good afternoon, Dr. Weiss and Dr. Newell. I think I will stay seated if that's acceptable. My name is Melissa Birchard. I'm an attorney for Conservation Law Foundation, but I'm also the designated spokesperson for a group of Intervenors comprising the Appalachian Mountain Club, Ammonoosuc Conservation Trust and Conservation Law Foundation.

Mr. Anderson, with New England Power

Generators Associates, NEPGA, earlier raised

Northern Pass's bids in the Massachusetts RIP,

Request for Proposals, process with you before
the lunch break today; is that correct?

- A (Weiss) Yes.
- Q In particular, Mr. Anderson referenced a combined wind and hydroelectricity energy supply proposal. Do you recall that?
- 20 A (Weiss) Yes.
- Q To your knowledge, was this mixed resource
 proposal referenced in the Application in this
 proceeding?
- 24 A (Weiss) I don't know.

1 0 Mr. Newell? Do you have an answer to the 2 question? 3 Α (Newell) I don't know everything that might have been referenced in this proceeding so I can't 4 5 answer that. I don't think that was the concept 6 specifically that was in the analyses we 7 reviewed. Let the record note that Dr. Weiss is nodding 8 Q 9 his head in agreement. 10 Α (Weiss) Yes. That is true. 11 Q To your knowledge, was this mixed resource 12 proposal referenced in the testimony provided by 13 the Joint Applicants in this proceeding? 14 (Weiss) I would answer sort of the same way. Α 15 I'm not entirely sure, but it was not referenced 16 in the energy market benefit analysis and 17 emissions benefit analysis we reviewed. 18 Thank you. To your knowledge, was this Q 19 introduced into the record in any other way by 20 the Applicants? 21 (Weiss) I don't know. Α 22 It's a "to your knowledge" question so you can Q 23 certainly say no. 24 (Weiss) No. I just don't know. So I guess the Α

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           answer would be no.
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           Thank you. And let the record reflect that
      Q
 3
           Dr. Newell is nodding his head in agreement.
           Thank you.
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               Was there any reference to a wind resource
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           by the Applicants in the Applicant's Application
 7
           or the case-in-chief to your knowledge? A wind
 8
           resource?
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      Α
           (Newell) Same answer.
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           Same answer. Thank you.
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      Α
           (Weiss) No.
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           Have you had access, either of you had access to
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           unredacted copies of the Northern Pass
14
           Massachusetts RFP bids?
15
      Α
           (Weiss) No.
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      Α
           (Newell) No.
17
           Have either of you had access to any other
      Q
18
           nonpublic information about the Northern Pass
19
           Massachusetts RFP bids?
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      Α
           (Weiss) I'm going to say no.
21
           (Newell) No.
      Α
22
           If you were asked today to perform analysis of
      Q
23
           the combined wind and hydroelectricity proposal
24
           that was referenced earlier, would you have in
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1 front of you the information that you need to 2 fully assess its projected market impacts? (Weiss) We have no information in front of us so 3 Α clearly no. 4 5 (Newell) Also you have to remember that that, we Α 6 didn't have full information to assess what we 7 did analyze. I mean, that's part of why we described a number of unknowns. We'd still have 8 9 a number of unknowns if we analyzed a slightly 10 different project. 11 Q Thank you. It sounds like the answer is no. Let the record reflect an agreement. 12 13 Mr. Chairman, I have no further questions 14 on this line of cross-examination and would like 15 to move on to the next one on my list, but I 16 would like to just briefly flag before moving on 17 that based on the testimony of Dr. Weiss and 18 Dr. Newell here today and their responses to the 19 questions of Mr. Anderson and myself, I 20 anticipate that subject to further discussions 21 with the other members of the NGO Intervenor 22 grouping and my own colleagues, I may file a motion for clarification as to whether the 23

hybrid wind hydroelectricity project proposal is

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appropriately before the Committee for discussion. Having flagged this, I will keep moving on to my next subject of cross-examination.

I'd like to discuss recent documents regarding competing energy projects. When Julia Frayer of London Economics was on the stand, she acknowledged perhaps most clearly in response to questions from Commissioner Bailey that a similar Project that is similar to Northern Pass, a similar Project like the TDI Clean Power Link Project would have very similar electricity market impacts, particularly capacity market impacts. You would agree with that general conclusion; is that correct?

- A (Newell) Basically, yes. Some details could be different. Its MOPR review could be different but basically, yes. And that's part of what our concept was. In Scenario 4 we basically assumed that.
- Q Is it true that Granite State Power Link which was just referenced a moment ago, a Project of National Grid, proposes to deliver to New England an additional 110 megawatts of

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          electricity beyond what Northern Pass proposes
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          at, I believe, a total of 1200 megawatts of
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          total capacity but will largely use an existing
          line through the state of New Hampshire? Are
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 5
          you aware of that and is that your
 6
          understanding?
           (Newell) So I should say that I'm, it's probably
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      Α
          true for both of us, we're generally aware of
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 9
          that proposal. We haven't studied that proposed
10
          project in great detail. So I can't, I don't
11
          know offhand whether that's 100 megawatts more
12
          or --
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      0
          You don't know exactly what the size of the
14
          project is?
15
      Α
           (Newell) No.
                         Right.
16
          But you're familiar with it?
      Q
17
           (Newell) General similar size, but --
      Α
18
          Similar size. And are you also aware that it
      Q
19
          proposes to use an existing transmission line
20
          through the state of New Hampshire?
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               MR. NEEDLEMAN: Objection. Relevance.
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               PRESIDING OFFICER HONIGBERG: Ms. Birchard?
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               MS. BIRCHARD:
                               The relevance is the extent
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          to which cost similarities to Northern Pass can
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1 be established. 2 PRESIDING OFFICER HONIGBERG: That Project is not before the Committee. 3 MS. BIRCHARD: So we have compared the 4 5 Project to TDI in terms of capacity market and 6 GHG impacts. There are some other projects out 7 there --(Court reporter interruption) 8 9 PRESIDING OFFICER HONIGBERG: 10 speaking way too fast. 11 MS. BIRCHARD: Pardon me. We could 12 previously compared the Project to the TDI Power 13 Link Project for purposes of better 14 understanding potential capacity market impacts, 15 GHG impacts and other types of impacts and 16 potential benefits, in particular to the state 17 of New Hampshire. I would argue that other

projects than TDI including, for example, the

19 National Grid Project may bear some discussion,

20 not extensive discussion, but very brief

21 discussion in terms of better understanding

22 potential benefits to the state of New

Hampshire.

24 PRESIDING OFFICER HONIGBERG: Mr.

1 Needleman? 2 MR. NEEDLEMAN: I don't recall any of those 3 things that Ms. Birchard just talked about, and my experience certainly before the Committee is 4 5 that comparison of a Project before the 6 Committee to other Projects that may or may not come before the Committee has no relevance. 7 PRESIDING OFFICER HONIGBERG: Yes. 8 9 don't recall what you were referencing, the 10 comparisons you say that have been aired in the 11 proceedings so far. What are you referring to? 12 MS. BIRCHARD: I don't have citations in 13 front of me, but I think even today we've done a 14 little bit of comparison to some other projects 15 in terms of GHG impacts, in terms of capacity 16 market impacts. 17 PRESIDING OFFICER HONIGBERG: I don't 18 recall the same things you do. The objection is 19 sustained. 20 MS. BIRCHARD: Thank you. 21 BY MS. BIRCHARD: 22 Are you aware of how many bids were submitted in Q

(Weiss) Yeah. I don't know the exact number,

the Massachusetts RFP process?

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Α

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           but it's ten to 20 or more.
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      Q
           Okay.
           (Weiss) Large number of total bids.
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      Α
           I think it might be more, but thank you for that
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      0
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           response.
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           (Weiss) 25.
      Α
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           You're not aware but it's a significant number?
      Q
           (Weiss) Significant number, right.
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      Α
 9
           Significant number. And based on your
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           information, is it your opinion that there are
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           multiple serious contenders among those bidders
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           that may include Northern Pass, but are there
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           other potential serious contenders?
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               MR. NEEDLEMAN: Objection. Relevance.
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               PRESIDING OFFICER HONIGBERG:
                                              What's the
16
           relevance?
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               MS. BIRCHARD: Well, among other things,
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           There have been statements in this proceeding
19
           that Northern Pass may not proceed without
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           success in the Massachusetts RFP process and
21
           certainly the ability of Northern Pass to
22
           succeed is relevant to the state of New
23
           Hampshire and the benefits.
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               PRESIDING OFFICER HONIGBERG:
                                              There have
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been a lot of questions about that from
Intervenors and others. I don't know that any
witnesses have said that the Project won't be
built if it doesn't win the Mass. RFP. Any
Applicant witnesses.

MS. BIRCHARD: I believe that Mr. Bowes made certain statements to that effect. I don't know that I have the citation in front of me, but it was to the effect that in the context of whether or not additional undergrounding would be economically feasible. Mr. Bowes made the statement in his testimony that, and I believe this was his Supplemental Testimony, that there were rising costs associated with the Project already and that there were formidable hurdles to overcome for the success of the Project, including the importance of success in the Massachusetts RFP bidding procedures.

PRESIDING OFFICER HONIGBERG: Mr Needleman?

MR. NEEDLEMAN: That was not the testimony that Mr. Bowes was talking about certainly, and I believe Mr. Quinlan was asked these questions directly.

1 PRESIDING OFFICER HONIGBERG: I'm sorry. 2 Who was asked the question? 3 MR. NEEDLEMAN: Mr. Quinlan. I don't think Ms. Birchard is correct here. 4 5 PRESIDING OFFICER HONIGBERG: I'm not sure 6 that these witnesses are even going to be able to answer your question, but I'll allow it, but 7 I don't know how much further beyond that 8 9 question you'll be allowed to go, but if they 10 have an answer, they can give it. 11 BY MS. BIRCHARD: 12 So I actually have no further questions beyond 0 13 that, but my -- on that particular line of 14 questioning, I should say. But I can repeat it 15 for you because you've probably forgotten it at this time. 16 17 (Weiss) That would be a good idea. Α 18 Okay. Is it your opinion that there are Q 19 multiple serious contenders among the 20 Massachusetts RFP bidders that could potentially 21 succeed in that process? 22 Α (Weiss) So I guess I'm not sure how you define a 23 serious contender, and I don't know how the 24 evaluation process will conducted specifically

1 in Massachusetts. But, you know, the parties 2 that have submitted bids certainly have names 3 attached to them that suggest that they have 4 experience. Whether the specific projects are 5 serious enough, I haven't evaluated. 6 Thank you. I assume that answer applies to you 0 as well, Dr. Newell? 7 (Newell) Yeah. Correct. We have not done any 8 Α detailed evaluation of how likely any one of 9 10 them is to pass all their criteria, how likely 11 any one of them is to win. Only made the point 12 that there is a possibility that there are other viable alternatives, and that this Project might 13 14 be competing with those. 15 Q And to your knowledge, would some of those other projects also have the potential to have GHG 16 17 impacts in the positive arena? 18 (Weiss) So not having seen or reviewed in detail Α 19 those proposals, it's hard to tell, because I, 20 for example, you know, hydropower is a portion 21 of at least some of those proposals. 22 suspect similar questions would arise that have 23 been discussed today about whether those hydro 24 resources or the hydropower comes from existing

1 or new hydro resources. 2 Thank you. A number of the bids include a Q 3 transmission component similar to the Northern 4 Pass Transmission component, but not all of them 5 do; is that your understanding? 6 MR. NEEDLEMAN: I'm going to object again at this point. I just don't understand the 7 relevance of this. 8 PRESIDING OFFICER HONIGBERG: Ms. Birchard? 9 10 MS. BIRCHARD: The relevance will go 11 towards, again, the benefits to New Hampshire, 12 whether there are other cheaper sources of 13 electricity and other means to achieve a similar 14 environmental benefits. 15 PRESIDING OFFICER HONIGBERG: Sustained. 16 BY MS. BIRCHARD: 17 In your opinion, is it possible that a long-term Q 18 contract, this is in that line of questioning 19 but skipping to the end so that you can assess 20 whether or not the question is appropriate, 21 Mr. Chairman, in your opinion could a long-term 22 contract like the one that Eversource and 23 Northern Pass Transmission have described in

this proceeding have the same benefits but

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1 higher costs than transmission of 2 hydroelectricity into the US on a merchant basis? 3 PRESIDING OFFICER HONIGBERG: 4 What. 5 long-term contract? 6 MS. BIRCHARD: A long-term arrangement for 7 hydroelectricity as opposed to --PRESIDING OFFICER HONIGBERG: To be 8 9 purchased by Eversource or PSNH? That contract 10 was withdrawn. 11 MS. BIRCHARD: I'm talking about projects 12 with long-term arrangements for power as opposed 13 to projects with open capacity for merchant 14 transmission of power. So in this instance, Hydro-Quebec has committed to transmit 15 16 hydroelectricity over the line in a certain 17 amount for a certain amount of time, and there 18 are other projects that have open capacity for 19 the transmission of merchant power as opposed to 20 that long-term commitment of power. 21 PRESIDING OFFICER HONIGBERG: So your 22 hypothesizing some arrangement that isn't before 23 us that they might enter into? That might 24 affect the?

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                               Again, it goes towards
               MS. BIRCHARD:
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           whether or not there are other projects in the
 3
          market with similar parameters but important
          differences that could actually lower the costs
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 5
           for the state of New Hampshire.
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               PRESIDING OFFICER HONIGBERG:
                                              Mr.
          Needleman?
 7
                                Same objection.
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               MR. NEEDLEMAN:
               PRESIDING OFFICER HONIGBERG:
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                                              Sustained.
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      BY MS. BIRCHARD:
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           Moving on, I'd like to next discuss the ongoing
12
           integrating markets and public policy effort at
13
           ISO New England. Just for a moment, are you
14
           familiar with that process generally, Dr. Newell
           or Dr. Weiss?
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           (Newell) Yes.
      Α
17
           (Weiss) Yes.
      Α
18
           And you're aware that it's also referred to as
      Q
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           IMAPP or IMAPP for short, correct?
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           (Weiss) Yes.
      Α
           I'll use that for convenience.
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                In simple terms, one of the objectives of
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           IMAPP is to influence the resource mix
24
           participating in the New England markets; is
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1 that correct? 2 (Newell) That is, I believe, one of the stated Α 3 objectives, yes. In your professional opinion, is it then 4 0 5 possible that IMAPP could have an impact on the 6 resource mix and diversity in those markets? 7 Α (Newell) Nothing has been established yet in the IMAPP process so I'd be speculating. But hold 8 9 on just a second. 10 Well, I should just mention that colleagues 11 of ours are working on that, including with the 12 organization you represent, CLF, and I don't know if that affects, it's a question, I don't 13 14 know if that affects the appropriateness of us 15 talking about that, but I can say from public information, again, I don't think anything has 16 17 been determined so it would be speculating to 18 say where it will go. 19 Thank you. Yes. And for the record, we have Q 20 not spoken previously about this subject, 21 correct? 22 Α (Weiss) That is correct. 23 Okay. Finally, I'd like to ask you a few 0 Yes. 24 questions about an Exhibit I prepared. This is

1 the last subject so let me draw it up for a 2 moment, if you'll bear with me. (Discussion off the record) 3 I apologize for that delay. I think we are live 4 0 5 now. 6 (Weiss) Yes. We can see it. Α Great. So this exhibit has been marked 7 Q Okay. as NGO Exhibit 35 and will be made available to 8 9 the parties. If you wouldn't mind taking a look at it, you can see it's labeled at the top as a 10 11 Commonwealth Magazine article dated October 12 12th, 2017, and the title is National Grid Calls 13 Foul on Hydro-Quebec Proposal. Do you see that? 14 (Weiss) Yes. Α 15 0 Have you seen this article before? 16 (Weiss) I actually have seen it before. Α 17 Okay. And you are aware of statements made in Q 18 this proceeding to the effect that Hydro-Quebec 19 is not building additional incremental 20 hydroelectric generating capacity for the 21 purpose of specifying of serving Northern Pass; 22 is that correct? So there's been --23 (Weiss) Can you repeat that question the way you Α 24 want it answered?

1 Are you aware of statements made in this 0 2 proceeding to the effect that Hydro-Quebec is not building additional incremental 3 4 hydroelectric generating capacity for the 5 purpose of serving Northern Pass? 6 (Weiss) So there are a lot of double negatives Α 7 in there so I'm not aware of any statements that they will not build any incremental hydro 8 9 capacity specifically for this Project. 10 Maybe a little confusing so let me see if I 0 11 can --12 Α (Weiss) No. I'm not aware of any statements. 13 0 Is whether or not new generating capacity is 14 built for the purpose of the Project relevant to 15 capacity market analyses including the Internal 16 Market Monitor's analysis? 17 (Newell) Yes. Α 18 So I am scrolling down a little bit on to page Q 19 2. You'll see the first highlighted passage 20 just identifies a certain individual, Lynn 21 St-Laurent, as a spokeswoman for Hydro-Quebec, 22 and I apologize to the French speakers. I do 23 not speak French. 24 Moving down a little further, there's a

1 quotation from Lynn St-Laurent, the spokeswoman 2 for Hydro-Quebec, and the first sentence here seems to be a reference to the fact that 3 4 National Grid is accusing Northern Pass of some 5 kind of deficiency, but that's not where I'd 6 like to focus your attention. Its just below 7 that. The subsequent 2 or 3 sentences read, and 8 this is a quote from St-Laurent or St-Laurent, I 9 don't know which it is. "Hydro-Quebec has built 10 4,500 megawatts of new hydropower in response to 11 several legislative mandates to decarbon and 12 diversify the power sector in Massachusetts and 13 through the northeast. Another 600 megawatts is 14 currently under construction and will be 15 available by 2020. Because of the long lead 16 times associated with the design and 17 construction of hydropower infrastructure 18 projects, HQ has made ongoing investments in 19 advance of today's market opportunity." 20 If Hydro-Quebec is, in fact, building new 21 hydroelectric resources for the purpose of 22 serving the Massachusetts RFP through this 23 particular Project, the Northern Pass Project,

then in your opinion what kind of general impact

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could that have on the ISO New England Internal Market Monitor's Minimum Offer Price Review analysis?

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(Newell) It may be a significant factor. One of the things we showed in our testimony was that if the full cost of new hydrogeneration is included in that MOPR analysis what is the competitive cost of this resource. That number would be very, very high. There would be no chance of clearing in the market and having a capacity market impact.

Now, we don't actually know how the Market Monitor will do that. This is not a standard calculation. I don't think they've had any elective transmission upgrades go through this, but certainly not, you know, not with public information on how they went through it in any case and not with all these specifics.

So we don't actually know how the Market Monitor would deal with it. What if it's something subtle like this like okay, they didn't build a new dam just for this Project, but they've been building sort of over time in anticipation of sales like this, would the

Market Monitor view that as kind of in the long run that's new, you've got to count the cost of a dam or would he say ah, it's more subtle than that, I won't include it. I mean, I can think of economic arguments for including that cost, but we just don't know what the Market Monitor would do.

Q Do you agree with that, Dr. Weiss?

A (Weiss) Yes, broadly speaking, I'm agreeing exactly with what he said. I would perhaps add two things. One, if Hydro-Quebec did build, as sort of stated there, new hydro facilities in anticipation of selling into the northeast, that would strengthen the case that this would result in emissions reductions over the case where it's just shifting existing hydro resources from one market to another.

And then the other point sort of elaborating on the same MOPR discussion so just, so we don't know what the Market Monitor would do, but in some sense, I think in terms of the spirit so it can't be that saying I do or do not build a plant for a specific contract, that cannot be sufficient to not have the cost of

that project be included in the review.

So, for example, let's just assume some other New England state decided as a matter of policy, public policy, to build, to subsidize and build 2000 megawatts of new combined cycle plants every year because they somehow think that's in the benefit of the state. I doubt, but we don't know, but I doubt that, you know, in terms of what the MOPR is trying to accomplish that one could say well, that's something that would have happened anyway so we're not counting the cost of any specific, of the combined cycle for a specific bid into the Capacity Market.

So that's the other thing here is that in terms of the MOPR we don't know for sure, but if the Province of Quebec has a public policy to build new hydro resources, and that may be a really good policy for Quebec, it may be a really good policy for the region including New England, that by itself does not mean that the Market Monitor would not count the cost of building these new hydro resources in its MOPR analysis.

1 That's all my questions. 0 Thank you. 2 PRESIDING OFFICER HONIGBERG: Ms. Pacik? 3 CROSS-EXAMINATION 4 By MS. PACIK: 5 Thanks. I'll just need Attorney Birchard to go 0 6 off the Apple TV, and I think that way Attorney 7 Whitley can sync into it. Okay. Good afternoon. Danielle Pacik. 8 9 I'm sitting over here. Thank you. 10 (Weiss) Hi. Α 11 Q I am the attorney for the City of Concord, and I 12 am also the spokesperson for Municipal Group 13 3-South, and I have a few questions for you. 14 Starting off with something that you raised 15 in your Prefiled Supplemental Testimony on page 2, line 13, and in that section, you discuss the 16 17 fact that Applicants have made recent statements 18 that proceeding with the proposed Northern Pass 19 Transmission line depends on winning a 20 competitive solicitation for clean energy, and 21 you're familiar with that statement that you 22 made? 23 (Newell) We're just opening up the report right Α 24 You said page? now.

And

1 It was Supplemental Prefiled Testimony. 0 Page 2. 2 Right around line 13. 3 Α (Weiss) Is it testimony or report? 4 Testimony. This was the easy part. 0 5 (Weiss) That's what you thought. Α 6 (Newell) Now we found our testimony. Α Excellent. You recall making that statement? 7 Q 8 Α (Newell) Yes. 9 Okay. So I just want to clarify it because we 0 10 did hear during the testimony of Bill Quinlan on 11 April 13th, 2017, that he thought the proposed 12 line would be built even if NPT did not win a 13 solicitation, and during his testimony he also 14 referenced opportunities in both Rhode Island 15 and Connecticut for Northern Pass to possibly 16 bid into. 17 And I'd like to turn to what's been 18 previously marked as Counsel for the Public 600 19 which we saw earlier today which is the 20 transcript from the second quarter investor call 21 on July 28th, 2017, which occurred approximately

 $\{SEC\ 2015-06\}\ [Day\ 52/Afternoon\ Session\ ONLY]\ \{10-26-17\}$

three months after Mr. Quinlan testified.

if we go to page 8 of that document, there is a

question from Michael Weinstein which is at the

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top, and we'll just blow it up to make sure you can read it. Can you see what's on the screen sufficiently?

(Weiss) Yes. Α

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Okay. So the question from Mr. Weinstein, and I 0 have the section highlighted I wanted to refer you to, was he asked and also separately how critical is winning the RFPs to keeping the Project on track? I mean, my understanding is they're not, it's not critical. What happens if you lose? I understand there's other opportunities in these other states that are -will be coming next year. But how critical is it to keeping the Project on track?

And Leon Olivier responded that, and this is in the highlighted section, in regards to the Project, whether we win the RFP or not, we are submitted to build the Project and HQ is. then he goes on to state, I have stated there are a lot of opportunities in all of these states for clean energy.

I just want to talk for a brief moment about his reference to a lot of opportunities in all these states for clean energy. I believe

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what he's referencing is page 6 of this call, and if we go right up there we can look at what the other opportunities he had talked about were. We're just going to scroll down a moment to find them.

All right. So he talks about the first Mass. RFP, but then in the next, in that first highlighted paragraph he also references that in New York, Governor Cuomo announced a goal of procuring 400 megawatts of offshore wind with the first RFP expected early next year.

So in terms of other opportunities in other

states, that New York solicitation, NPT would not be eligible to bid into that, would it?

Because that's for offshore wind?

(Weiss) So I'm not sure we have all the information here to say that, but I think one of the tricky parts of interpreting this document is it's an investor call, and Eversource is involved in a number of projects and some of them are not related to Northern Pass. So the fact that this section here lists other clean energy solicitations does not mean that those are the solicitations that might be alternatives

for Northern Pass if for some reason it didn't 1 2 succeed in the Mass. RFP. It might just apply 3 to other projects that Eversource is involved in either directly or through a joint venture. 4 5 Okay. And I'll just represent to you that this 0 6 entire document is going to be marked and provided, I believe it already has, as an 7 exhibit so, obviously, the Committee can read 8 9 the entire document, but I'll represent to you 10 for now that this was the introductory remarks 11 in terms of other eligible bids that they were 12 looking at that would apply to either NPT or 13 Baystate Wind which was the partnership between 14 Eversource and DONG Energy for wind. So when Mr. Olivier referenced later on in 15 16 the call the other state bids, this is what he 17 was referencing. So I'll just represent that to 18 you to help you focus the question. 19 So in terms of that first one though for 20 New York, that would be an offshore wind 21 project, right? 22 Α That's correct. 23 And then the second one is Rhode Island Governor 0

Gina Raimondo has announced a goal of procuring

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1 1000 megawatts of clean energy by 2020. Are you 2 familiar with that solicitation? 3 Α (Weiss) So I am not, we're not aware of that 4 being a solicitation at this point. 5 Do you know whether that would be for clean 0 6 energy or for wind? (Weiss) So we don't know. 7 Α Okay. So at this point there's been no details 8 Q 9 as to whether it will be clean energy or wind or 10 what the solicitation would entail? 11 Α (Weiss) I'm not aware of any detail beyond just 12 having announced a goal of procuring 1000 13 megawatts of clean energy. 14 So fair to say nothing has been announced to Q 15 date by Rhode Island? 16 (Weiss) Nothing that I'm aware of. Α 17 Q Okay. 18 (Newell) Well, hold on. In terms of a specific Α solicitation. All of the southern New England 19 20 states and New York have clean energy goals, and 21 they just haven't fully specified how they're 22 going to go meet them. 23 Right. And so there's a big difference between 0 24 having a clean energy goal and having a

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           potential solicitation that NPT could
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           potentially bid into, right?
           (Newell) Well, one can turn into the other.
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           And alternatively, one could just end up being
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           offshore wind, right?
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           (Newell) Could.
      Α
           Okay. So the next one is a reference to
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           Connecticut, and it's Public Act 17-144 and,
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 9
           again, that would just be for offshore wind,
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           right?
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               MR. NEEDLEMAN:
                                Objection. Relevance.
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               PRESIDING OFFICER HONIGBERG:
                                              Ms. Pacik?
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               MS. PACIK:
                            It goes to the credibility of
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           Mr. Quinlan. He specifically testified about
           the potential to bid into both Rhode Island and
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           Connecticut by NPT, and I'm trying to identify
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           whether there are even any potential
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           solicitations available in either of those
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           states for NPT, and those were specifically
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           referenced during his testimony, and I can pull
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           that up if need be.
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               PRESIDING OFFICER HONIGBERG:
                                              Mr.
23
          Needleman, you're looking like you want to say
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           something.
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MR. NEEDLEMAN: Yes, I'm just confused. I think the principal point in Mr. Quinlan's testimony is when he was asked do they have to win the Mass. RFP I think he said no, and I think that was reflected earlier in Mr. Olivier's call, and I think he talked theoretically about the possibility for others but didn't say anything about dependent. So I'm not sure why any of this matters to what the Committee has to decide.

MS. PACIK: He went into detail about the

MS. PACIK: He went into detail about the fact that there are other potential solicitations available both in Rhode Island and Connecticut that NPT would look at bidding into, and from what we can tell at least here, Rhode Island, there's no information whether --

PRESIDING OFFICER HONIGBERG: So you've got these two witnesses on the stand that you're showing them documents and you're asking them to assert the truth of these documents that will somehow impeach. You said credibility. Impeach Mr. Quinlan's testimony.

MS. PACIK: No. I'm trying to identify whether there are indeed any potential

solicitations in either Rhode Island or 1 2 Connecticut that NPT could bid into. 3 PRESIDING OFFICER HONIGBERG: Have you 4 asked these witnesses that question? 5 MS. PACIK: Yes, I'm going through it right 6 We just went through Rhode Island. 7 PRESIDING OFFICER HONIGBERG: You're showing them a bunch of documents that say what 8 9 you want them to say. These witnesses don't 10 need to be here for you to use those documents. 11 Do they? I mean, are they adding anything to 12 the documents? 13 MS. PACIK: Yeah, they're clarifying 14 because for, they're clarifying what these projects entail in trying to figure out whether 15 16 or not the Rhode Island one was for wind versus 17 hydro. We just find out that we don't know yet. 18 PRESIDING OFFICER HONIGBERG: They don't 19 They don't have personal knowledge about know. 20 any of this. You're showing them documents. 21 MS. PACIK: Right. 22 PRESIDING OFFICER HONIGBERG: They're not 23 their documents. They didn't write them, 24 they're not quoted in them, they haven't studied

1 Do you need them to prove what you're 2 trying to prove, that Mr. Quinlan was wrong? Ι 3 don't understand how you do. MS. PACIK: Mr. Quinlan made a statement 4 5 that he was looking to bid into Rhode Island and 6 Connecticut potentially. 7 PRESIDING OFFICER HONIGBERG: Got that. MS. PACIK: And now Eversource three months 8 9 later is saying basically yeah, there's, you 10 know, we've identified these potential projects 11 out there for either NPT or for our wind 12 project, and I'm trying to identify whether any 13 of them would actually, whether NPT would 14 actually be eligible for any of these. 15 PRESIDING OFFICER HONIGBERG: Have you 16 asked them that question? Do they know the 17 answers to these questions? Are they 18 responsible for any of these RFPs? 19 They're experts in this field. MS. PACIK: 20 I think it's a fair question to ask them whether or not going through, and there's not a lot, 21 22 there's only three that are referenced here, 23 whether NPT is eligible for any of these. 24 PRESIDING OFFICER HONIGBERG: Do you know

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          if NPT or I guess Hydro-Quebec actually would be
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          eligible for any of the RFPs in the other
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          states?
           (Weiss) You're asking us?
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               PRESIDING OFFICER HONIGBERG: I'm asking
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          you that question. Yes.
           (Newell) I don't believe there's a --
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      Α
               PRESIDING OFFICER HONIGBERG: The question
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          is do you know if they are eligible.
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      Α
           (Newell) Well, the thing is, that's an
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          ill-specified question. Eligible for what?
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          Because they don't have a solicitation yet.
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          so you can't answer that question.
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               PRESIDING OFFICER HONIGBERG: What else do
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          you want to know, Ms. Pacik?
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               MS. PACIK: Well, I want to know at least
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          with Massachusetts we've determined or at least
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          with Rhode Island there's no solicitation. For
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          the Connecticut one that is out there, under
          Public Act 17-144 is hydro even eligible under
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21
          that act.
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      Α
           (Weiss) I don't know. I guess the other thing
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          to point out --
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               PRESIDING OFFICER HONIGBERG:
                                              The answer
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1 you gave is I don't know. What do you want to 2 add to that answer besides I don't know. 3 Α (Weiss) Asking me? PRESIDING OFFICER HONIGBERG: Yes. 4 5 Α (Weiss) I was going to say that there's 6 confusion between the Massachusetts RFP being a precondition and the statement that some sort 7 8 of, you know, procurement to provide clean 9 energy might be necessary, and I think those 10 things can be somewhat separated. 11 PRESIDING OFFICER HONIGBERG: I think 12 you're right, but I'm going to ask you not to 13 quess at what the questioners want to know and 14 just stick to the question. If you know the 15 answer, give an answer. And if you don't know 16 the answer, say you don't know. Okay? 17 Sorry. I'm being testy with you, and I 18 shouldn't be testy with you. I'm sorry. Ms. 19 Pacik. 20 MS. PACIK: Thank you. 21 BY MS. PACIK: 22 So going back to Mr. Quinlan's statement that Q 23 NPT would be built or he believes NPT would be 24 built even if there was no solicitation, I'd

1 like to go to page 10 of this document.

And along the same line later on one of the investors asked, it was Mr. Paul Pattison, he asked, right, so you would think that it would be part of the value that the Project would provide. So it seemed kind of -- oh, sorry.

I'm reading the wrong one. Going down a little bit. Where it's orange.

It says okay. And then you mentioned that if the Massachusetts RFP doesn't happen, you feel there's enough opportunity out there which makes sense for the value of the Project. But I'm just wondering. Do you think that the Project would proceed in the absence of some sort of contractual setup such as the Massachusetts RFP or some other state sort of sponsor program or that there's enough confidence that you just simply proceed with the Project and hope to get something regardless, if you follow me.

And the response was, I follow you, Paul.

I think where we are right now is we think our project has all the attributes that it will be the winning project in this RFP, and if for some

reason we don't win this RFP, we'll take a pause, we'll take a look, and we'll look at where the other states are in those RFPs and in that process, and we'll make that decision at that time.

So in terms of where we stand today and what we just saw, have you seen anything today that Eversource has committed to constructing the Project if it does not win the Mass. RFP or some other solicitation?

A (Weiss) No.

Q Okay. In terms of selling capacity, Attorney
Pappas earlier showed statements that
Hydro-Quebec has not committed to selling
capacity on the line, and I want to just focus
on a question on that particular issue.

Have you seen anything to date where

Hydro-Quebec has committed to actually enter and
participate in the capacity energy market?

- A (Newell) Can you restate your question? Because I don't know about capacity energy market.
- Q Sorry. That was probably a poorly worded question.

Have you seen anything to date that

1 Hydro-Quebec has made a commitment to even offer 2 in the Capacity Market? 3 Α (Newell) Haven't seen anything. 4 0 And based on the Mass. RFP, is it your 5 understanding that that RFP does not require 6 Hydro-Quebec to offer into the Capacity Market? 7 Α (Newell) I believe that's the case, yes. You made a statement earlier that Scenario 8 Q 9 number 4 in your report is more likely to occur 10 based on the bids that you saw in the Mass. RFP. 11 Can you explain that further? 12 Α (Weiss) I'm not sure whether we made that 13 statement. So I'm not sure. We'd have to go 14 back to -- do we say that in our --15 0 No. You said it today. I think you had 16 mentioned that based on the number of bids that 17 you saw in the Mass. RFP that you thought that 18 it supported at least in some form scenario 19 number 4 which was that the NPT would displace 20 competing clean energy products providing no 21 energy market benefits. 22 Α (Weiss) So I think, I'm not entirely sure what 23 precisely we said, but the general point is that there seems to be a desire by Massachusetts to 24

procure a certain amount of clean energy, and 1 2 that sort of procuring that clean energy from Northern Pass is one avenue for Northern Pass to 3 4 get revenues for its clean energy. But the 5 desire to procure clean energy by Massachusetts 6 is not limited to procuring it from Northern There's this RFP out there. There are a 7 Pass. certain number of bids that have been entered. 8 9 We don't know how they will evaluate those bids. 10 We don't know whether Northern Pass will be the 11 winner or the only one that would be deemed 12 passing whatever economic benefit tests the 13 evaluators will apply. But at least it suggests 14 the possibility that if Northern Pass doesn't win or even if Northern Pass didn't bid, some 15 other project might be chosen. It's not for a 16 17 lack of proposals to produce and provide this 18 clean energy that would, you know, as an 19 alternative to providing that clean energy over 20 Northern Pass. 21 0 Okay. Thank you. 22

I'd like to now turn to Joint Muni Exhibit 307, and this is a study that I think Attorney Birchard had referenced and was referenced in

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1 the article that she showed you during her 2 questioning. And are you aware that this, 3 you're familiar or you've seen, you're aware that this study exists, is that right? 4 5

- (Weiss) I think we would say yes. Α
- And you understand that this study was prepared 0 by ESAI Power, LLC, and it was done to analysis greenhouse gas emissions for the Granite State Power Link Project? Are you familiar with that generally?
- Α (Newell) Yes.

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12 Okay. If we go to the last page of this report, 0 13 what I have at the back of it is the summary of 14 the report. And in the summary, and I'm not going to read all of this, but it generally 15 16 states the opinion of ESAI that the existing tie 17 line capacity from Quebec is sufficient to allow 18 delivery of all energy, and as a result any 19 increase in delivery of hydropower from Quebec 20 to New England would be a diversion. 21 basically, it states that the offset of 22 reductions in greenhouse gas emissions in 23 Massachusetts by an increase in emissions 24 outside Massachusetts is defined as leakage.

1 Have you ever heard of that term leakage before? 2 (Weiss) Yes. Α 3 Can you explain what that means? 0 (Weiss) It just means that, I mean, we've 4 Α 5 already described it although we didn't call it 6 It means that emissions reductions in one that. area are basically leading to emissions 7 increases in some other area which partially or 8 9 entirely offset the emissions reductions in the 10 first place. 11 Q Okay. So, now, this report states that their 12 finding was that diversion would occur, and you 13 understand that LEI has rendered the opinion 14 that diversion would not occur. Is that 15 correct? 16 (Weiss) So I'm not sure whether LEI says Α 17 anything about diversion. They just estimate 18 greenhouse gas emissions reductions that 19 essentially assume displacing emissions in the 20 destination market without creating additional 21 emissions elsewhere. 22 Q So the LEI opinion, would it be fair to say that 23 it assumes that Hydro-Quebec will not be 24 diverting capacity to New York, and, instead,

1 for example, sending it to Massachusetts? 2 (Newell) I don't think LEI described what was Α 3 happening at the source really or possibly any diversion from other markets. I don't think 4 5 they were describing other markets. In order 6 for their analysis to make sense, you have to believe that there's incremental clean energy. 7 In order for their emissions analysis to make 8 9 sense from a global perspective, you'd have to 10 believe that there's incremental clean energy. 11 That is, it's not just diversion. 12 Because I think that -- let me just go back to 0 13 your report which it says, and this is in your 14 original report under the introduction which is 15 XII, or page 12, and it states the net 16 greenhouse gas emission savings of NPT could be 17 substantially less under two possible 18 circumstances. One is if Hydro-Quebec does not 19 increase its hydro generation to serve New 20 England but instead diverts power that would 21 otherwise serve New York or elsewhere and the 22 power is replaced with fossil-fired generation. 23 LEI assumed that that would not occur; is 24 that right?

1 Α (Newell) Well, implicitly maybe, but I mean they 2 didn't have an explicit assumption about that, 3 but, again, that assumption that you just described is consistent with their emissions 4 5 analysis being correct on a global basis. 6 Okay. And I understand that you also stated 0 7 that you hadn't seen anything in any of the documents or the report to support that implicit 8 9 statement; is that correct? 10 Α (Newell) To us I think it remains unclear what 11 resources would be behind Northern Pass and to 12 what extent they would be incremental from new 13 dam or something else. That, I think that 14 remains unclear to, I think, all of us. 15 0 Okay. So is the answer to that question yes, 16 you have not seen anything to support that 17 statement? 18 (Newell) Can you if go back to the beginning of Α 19 the question? To support the statement? Which 20 statement? 21 Well, so the answer is that it's correct that 0 22 you haven't seen anything to at least support 23 the implicit determination that diversion of 24 power from New York or elsewhere would not

1 occur. 2 (Weiss) Yes. The answer is yes. Α 3 Α (Newell) Yes. Sorry. It just takes a little thinking, but yes. 4 5 I'm sure it's my fault. Thank you very much. 0 6 PRESIDING OFFICER HONIGBERG: I think Mr. 7 Cote is up next. MR. COTE: I'm ready. I will need somebody 8 9 to flip on Apple TV. 10 PRESIDING OFFICER HONIGBERG: While he's 11 connecting, off the record. (Discussion off the record) 12 13 CROSS-EXAMINATION 14 BY MR. COTE: Good afternoon, Drs. Weiss and Newell. I am Bob 15 0 16 Cote with the Deerfield Abutter Group. And I 17 have just a few areas of discussion that I'd 18 like to review with you. 19 I'd like to start with this is a transcript 20 from Day 15, the morning, with Ms. Frayer, and 21 the topic of discussion was FCA 11, and I quess 22 you're probably familiar with the details, but 23 Ms. Frayer's report which was initially issued, I believe, just a few weeks before the results 24

1 of the Auction predicted a Clearing Price, I 2 believe, of about \$6.30 a kilowatt month. 3 then the, when the Auction actually took place I believe the Clearing Price was about \$5.30. 4 5 Does that sound about right to you? 6 (Newell) That is exactly right on the actual Α price. On what it was in the report, I can't 7 remember precisely, but also I think it might 8 have been in the redacted section of the report. 9 10 Okay. Well, anyway. As you can see from the 0 11 testimony that's here before you, Ms. Frayer 12 does say I think it's okay to say that there was 13 a dollar difference between her projection and 14 the actual price. And so we followed up on that 15 a little more, and the explanation for the 16 difference was that there was an unexpected 200 17 to 240 megawatts of power that remained in the 18 system, I believe unexpectedly. 19 So I was just a little surprised that the 20 Clearing Price could be that dependent on a 21 difference of, what seems like a relatively 22 small amount of energy difference in the market, 23 and I was wondering what your perspective would 24 Can 200, 240 megawatts of difference be.

trigger that big of a difference in the Clearing
Price?

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(Newell) Not the way you said it as triggered. I think it's a fact that the price will clear on or approximately on the demand curve in the Auction, and on that demand curve it's true that if you clear, that clearing about 200, 240 megawatts more corresponds to a fairly large price job drop. It just does. That's just a fact. Now, what I said was not quite correct that you said, 240 triggering, it's not just the 240 entered the Auction. There's a lot of moving parts here. It was actually more like 1400 megawatts, over 1400 megawatts entered the Auction and about 1100 megawatts left, and you know, if you look at what actually cleared. on net, it was something in this ballpark, call it 240 more than I think in the prior auction and than perhaps some of the analysts including maybe LEI was expecting.

Q So we went on this topic a little bit more talking about the effect of photovoltaics on the market, and I think Mr. Anderson talked about this a little bit this morning about behind the

1 meter, but anyway, the communication with Ms. 2 Frayer, I think where I was going with this was 3 wondering how much effect unanticipated entry of behind-the-meter photovoltaics could have on the 4 5 market, on the forward capacity market, because 6 I would say indirectly behind-the-meter photovoltaics, wouldn't they affect the 7 installed capacity requirement? 8 9 Α (Newell) Yes. Yes, they do, and the specific 10 effect that Mr. Anderson was talking about 11 before was that there are more photovoltaics

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load growth.

before was that there are more photovoltaics understood to be coming on now lowering the net demand, but I actually thought about it a little bit more since we talked, and it's going to be easy to think, you know, so they say there's about 400 megawatts less demand than they thought. That's just about one year's worth of

So it's not fundamentally different from anything we analyzed. It's just when the effects occur, when prices would rise absent Northern Pass and Northern Pass keeps prices low for a little while, that just all occurs about a year later. But unless you were talking about

1 something really different, you know, it doesn't 2 fundamentally change the analysis. Unless you 3 were talking about much, much, more, a bigger 4 change than that. Like everyone putting a solar 5 panel on their roof. 6 Let me ask the question a slightly different 0 If the difference in anticipated capacity 7 way. when Ms. Frayer did her report, if the 200/240 8 9 megawatt difference was part of the 10 miscalculation in the Clearing Price, wouldn't a 11 similar thing happen if somebody misestimated by 12 a few hundred megawatts the photovoltaic installations and effect on the ICR, wouldn't 13 14 that have a similar effect in the, you know, Clearing Prices and future Auctions? 15 16 Α (Newell) Yeah, it may. I mean, I think many, 17 many analysts were surprised by many things that 18 have happened in the last Auctions, including 19 the photovoltaics. They were surprised in FCA 8 20 by a bunch of coal plants down in Brayton Point 21 They were surprised in FCA 10 of 1400 leaving. 22 megawatts of new supply coming in and changes in 23 the net load, yeah, that's another surprise, 24 We may see prices different from what we too.

1 expected.

I just need to remind you, though, that what we're ultimately asking here are how are prices with Northern Pass versus without Northern Pass, and, you know, it's things change, but it's still, that's still ultimately what we're looking at even though, and, you know, if we're trying to focus the price in any given year, you'll probably get it off.

- Q Well, I believe that the Base Case from the London Economics report forecasts that the Clearing Price is going to be increasing at least for a few years. Is that accurate?
- A (Newell) Yes.
- Q So I guess what I'm trying to understand is could the Base Case actually be different more along the lines of what Mr. Anderson was suggesting, and that we have unexpected levels of PV entry into the market and instead of the Clearing Prices increasing they stay more or less stable where they are now.
- A (Newell) It's possible that prices would just stay in the -- we're right now in a low capacity price regime because there's excess capacity,

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and I think what you're suggesting is that if we have a lot of photovoltaics maybe we keep having a surplus for a long time. We don't have load growth sort of growing out of that surplus. And then you know, prices will never go up even without Northern Pass so there wouldn't be any benefit.

But you can, to believe that, you'd also have to believe there won't be retirements over time, and we, you know, we already have, we are using in our analysis ISO New England's latest, not the latest that Bruce just showed, but the second latest. It's close. It's just, it's 400 megawatts behind that. So, yes, you could point scenarios where the value was lower for sure. But, you know, it's not like we have some new piece of information here that fundamentally changes the analysis, you know, the few hundred megawatts. It just, because you have load growth and you've got some retirements. eventually are going to have the price probably rising. I could be wrong. And we have it, in our analysis we have it rising a few years later than LEI does, largely because we included

1 energy efficiency in our forecast. Anyways, 2 these are some of these uncertainties. It's 3 just that there's not one little thing that makes me think, oh, those benefits go away just 4 5 because of that factor. 6 It seems like if the forward capacity market or 0 the Clearing Price stays low, or even if it's 7 off somewhat from the London Economics 8 9 projections, that still represents or their 10 forecast, the Forward Capacity Market represents about 90 percent of the savings. So having a 11 12 large forward capacity market value, it gives you like a bigger piece, a bigger pie to cut 13 14 savings out of, but if the pie is a lot smaller 15 because the forward capacity market isn't 16 increasing in value, then isn't the potential 17 benefit from savings in that market also 18 reduced? 19 (Newell) So it's probably just a question of Α 20 timing. I mean, do you really believe load will 21 stay where it is and there won't be any 22 retirements forever? I mean, so I think my 23 answer to your question is no. It's probably

just a question of timing.

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1 So, for example, if we were to redo the 2 analysis and put in another thousand megawatts 3 of behind-the-meter photovoltaics, we would have 4 probably a little bit lower benefits, but mostly 5 it would be the same thing happening a few years 6 Northern Pass, absent Northern Pass, later. prices would still eventually rise, just a 7 little bit later. And Northern Pass would hold 8 9 down those prices for -- this is what it does. 10 It holds, it would hold them down if it clears. 11 It would hold them down for approximately three 12 to 4 years, four or so years. Why four years? 13 Because it's about 1000 megawatts. That's about 14 four years worth of load growth. So what it 15 does is delay the price rising. Eventually. 16 Whenever that may be. 17 Okay. Just maybe a little bit more of a general Q 18 question. We've talked about the model. Is the 19 model that you use the same as the model that 20 London Economics uses? 21 (Newell) No. Α 22 Okay. I guess that's the end of my guestioning. Q 23 Thank you. 24 That is all I PRESIDING OFFICER HONIGBERG:

have for Intervenors who have questions for the 1 2 Panel. Did we miss anybody? All right. You 3 want to take a ten-minute break, Mr. Needleman, 4 before you get started? 5 MR. NEEDLEMAN: Sure. 6 PRESIDING OFFICER HONIGBERG: All right. 7 (Recess taken 3:20 - 3:36 p.m.) 8 PRESIDING OFFICER HONIGBERG: Mr. 9 Needleman, you may proceed. 10 MR. NEEDLEMAN: Thank you. 11 CROSS-EXAMINATION 12 BY MR. NEEDLEMAN: Why don't we, actually, what I'd like to do is 13 0 focus, first of all, I'm Barry Needleman. 14 15 represent the Applicant. We've met before. 16 What I'd like to do is focus right in on 17 your Prefiled Testimony and your report. What I 18 really want to do is walk through your specific 19 opinions in those documents. And so I want to 20 start with Counsel for the Public's Exhibit 142 21 which was your February 10th, 2017, updated 22 Prefiled Testimony, and we've highlighted page

purpose of your testimony. And you say that

2, lines 14 through 17, where you describe the

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1 Brattle focused on NPT's potential impact on the 2 New England wholesale energy and capacity 3 markets and resulting savings for New Hampshire electric customers. We also analyzed the value 4 5 of potential greenhouse gas emission reductions 6 from NPT, correct? 7 Α (Weiss) Yes. And so we've really got three topics here I want 8 Q 9 to go through. Wholesale energy market 10 benefits, capacity market benefits, and 11 greenhouse gas emission reduction benefits. And 12 I want to preface it by saying that I'm going to 13 do my best to avoid confidentiality issues, and 14 I don't believe I need to go into confident I will dance around that on occasion. 15 session. 16 If you feel like I'm asking you anything that 17 requires that, let's pause, let me know and 18 we'll see what we can do to fix that. Okay? 19 So let's first start with wholesale energy 20 market benefits, and, again, Exhibit 142 which 21 is your Prefiled Testimony, page 5, line 16. 22 You say with respect to energy market

You say with respect to energy market impacts, we adopted LEI's analysis because we found that it probably captures the key

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           characteristics of the New England energy
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           market.
                    And then going on to lines 18 and 19
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           you continued, we did, however, make adjustments
           for differences in the scenarios we constructed.
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           Is that right?
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           (Newell) Right.
      Α
           And then on April 17th, 2017, you updated your
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      Q
           energy market analysis with your supplemental
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           report, correct?
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           (Newell) We did.
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      Q
           And that Supplemental Report is Counsel for the
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           Public Exhibit 144, and I've called up page 40,
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           the top of that page, in that Supplemental
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           Report. And what you say here is, "As in our
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           original report, we adopt LEI's analysis of
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           energy market benefits since we find their
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           methodology and results to be reasonable.
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               You continue on a little bit later, "Here
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           we adopt LEI's updated results submitted 6 weeks
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           after our original report in which the average
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           energy market benefits are nine million per year
22
           in 2020 dollars over a 11-year time period,
23
           correct?
24
      Α
           (Newell) Correct.
```

A (Weiss) Correct.

And then on page

3

4

5

6

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And then on page 41, third paragraph, highlighted here, you say, "One reason that we're comfortable adopting the higher estimate is that even this higher estimate could understate energy market impacts by not accounting for occasional extreme conditions. Under extreme weather conditions or common mode failure of resources, energy prices become more sensitive to changes in supply and NPT is likely to have more value."

So this is actually one of the points you were making this morning about these unusual weather events; is that correct?

- A (Newell) That's exactly it.
- Q And you actually believe that LEI's energy market analysis could be conservative, correct?
- A (Newell) I can't answer that in isolation. The thing is LEI presented the extreme weather as a separate piece. If you were to ignore that and somehow not include it at all, and actually I think they did not include it in their sum of benefits, that would make the energy market analysis alone probably conservative, yes.

1 Fair enough. And you didn't otherwise do any Q 2 independent energy market analysis, right? 3 Α (Newell) Correct. Now, back to Exhibit 142, your updated Prefiled 4 0 5 Testimony, I want to turn to greenhouse gas 6 emissions. On page 6, line 20, you said, "One of the major potential benefits of NPT is that 7 it could substantially lower greenhouse gas 8 9 emissions from the New England power sector," 10 right? 11 Α (Weiss) Correct. 12 And then in your report, also 142, on page 12, 0 13 you said, "We generally accept as reasonable 14 LEI's estimate that NPT would reduce greenhouse 15 gas emissions by approximately 3.3 million 16 metric tons per year, " right? 17 (Weiss) Could you repeat your question? Α 18 I thought it was straightforward. Q Yes. 19 (Weiss) It just took me a while to read. Α That's 20 all. 21 I've read what you said here in the yellow 0 22 highlighting which is that you generally accept 23 their estimate as reasonable, right? 24 Α (Weiss) I think it's important to also note that

1 we continue, next paragraph has relevance for 2 that statement. So we qualify that general 3 agreement in the paragraph below. 4 And you also say in the next sentence that you 0 5 adopt the estimate except in your Scenario 4, 6 right? (Weiss) That is correct, but that that is still 7 Α not the full testimony. So the following two 8 9 sentences are relevant. 10 Understood. But just to be clear, you're not 0 changing your testimony on that issue, are you? 11 12 Α (Weiss) No. We're not changing our testimony, 13 but I point out that that statement is followed 14 by other relevant statements. 15 0 No. I understand that. But there was some, it 16 seemed like confusion about positions you were 17 taking on greenhouse gasses, and I just want to 18 be clear. You stand by the statements that we 19 have here in your report, correct? 20 (Newell) Yes, including all the qualifiers which Α 21 they don't only apply to Scenario 4. 22 I understand the qualifiers. I just want to be Q 23 certain that you aren't changing what you put in 24 here based on what you've said here today?

1 (Weiss) Yes. Α That's correct. 2 (Newell) I believe everything we've said today Α 3 is consistent with what's in the report. Then back to Exhibit 142 which is your 4 0 5 updated Prefiled Testimony. Page 2, line 26. 6 You're asked the question -- could we go to the 7 question, Dawn? I'm looking at page 2. 26. 8 There we go. 9 So the question you're asking is how did 10 LEI approach its analysis of the NPT's impacts 11 to New England's wholesale electricity markets. 12 Do you see that? And you answer the question and it carries 13 14 over to the next page, and then you're asked a 15 followup question which is what are your 16 conclusions regarding LEI's analysis. 17 you answer that next question, what you're 18 answering is LEI's analysis, what you're 19 answering is with respect to LEI's analysis 20 regarding wholesale electric market benefits. 21 It follows from the prior question. Correct? 22 Α (Weiss) Could you scroll back to actually let us 23 read the full question and answer that's prior

24

to this?

```
1
                  The prior question is right on the bottom
      Q
           Sure.
 2
           of the page.
 3
      Α
           (Weiss) Yes. Got it.
 4
           Are we on the same page?
      0
 5
           (Weiss) Yes. Literally.
      Α
 6
           Just wanted to keep this focused.
      0
               So in line 11 which is the highlighting,
 7
           you say, "We agree with LEI's overall premise
 8
 9
           but find that they did not address several
10
           important uncertainties that could reduce NPT's
11
           impacts, especially in the capacity market which
12
           accounts for 90 percent of LEI's estimated
          benefits."
13
14
               So what I want to do now is focus on this
15
           disagreement that you have with LEI that we seem
16
           to have spent so much time on today. And I want
17
           to start by saying or asking you, LEI modeled
18
           the capacity market benefits to New Hampshire
19
           and found them to be about 60 million in nominal
20
           dollars, correct?
21
           (Newell) I believe that was the annual average
      Α
22
           over 10 or 11 years or something in nominal
23
           dollars.
24
           And then you filed your Supplemental Report on
      0
```

```
1
           April 17th which is Counsel for the Public
 2
           Exhibit 144, and I want to turn to that, and I
 3
           want to look at page 42, table 10. We have that
 4
           up on the screen. And these are the four
 5
           scenarios that you modelled with capacity
 6
           benefits to New Hampshire.
           (Newell) Can you hold on just a second? You're
 7
      Α
           referring to, I'm wondering why I have a
 8
 9
           slightly different page number.
10
               MR. PAPPAS: Mr. Chairman, one moment.
11
           Barry, I think you keep referring to 144, and I
12
           think it's 145. That might be throwing them
13
           off.
14
               MR. NEEDLEMAN:
                                Sorry.
           How about we refer to your, just call it your
15
      Q
16
           April 17th Supplemental Report, and I'm focusing
17
           on the redacted version.
18
           (Weiss) Right.
      Α
19
           I'm looking at page 42, Table 10, which we have
      Q
20
           up on the screen. Let me know when you're
21
           ready.
22
      Α
           (Newell) Ready.
23
           Okay. So what we see here is that you modeled
      0
24
           four scenarios with capacity benefits to New
```

```
1
           Hampshire, and we're looking at that second
 2
           column, and under your model they range from 26
 3
           million on the top, most beneficial scenario,
 4
           down to zero on the bottom scenarios, right?
 5
      Α
           (Newell) Right.
 6
           And with respect to that $60 million LEI figure
      0
 7
           that we talked about a moment ago, would you
           accept that that represents 39 million in real
 8
 9
           2020 dollars? Does that sound right to you?
           will tell you that's a calculation that LEI did
10
11
           and provided to the Site Evaluation Committee
12
          pursuant to its request on June 21st so I can
13
           get it to you if you want. But for purposes of
14
           this discussion, would you accept that it's 39
15
           million?
16
           (Newell) In capacity benefits?
      Α
17
                39 million in real 2020 dollars.
      Q
18
           (Newell) Right, but you're talking about the
      Α
19
           only the capacity category, not energy?
           Yeah, I'm talking about LEI's $60 million
20
      Q
21
           figure.
22
      Α
           (Newell) Yes. That sounds right, and I'll
23
           accept it, subject to check.
24
           And when we look at what you did here, part of
      0
```

```
1
           the work you did involved performing a
 2
           sensitivity analysis on Scenarios 1 and 2,
 3
           right?
           (Newell) Right.
 4
      Α
 5
           And the results of your sensitivity analysis are
      0
 6
           shown in the parentheses below the numbers in
           bold, correct?
 7
 8
      Α
           (Newell) That's right.
           So, for example, under Scenario 1, your
 9
      0
10
           sensitivity analysis shows the potential for
11
           Capacity Market savings as low as 15 million and
12
           as high as 58 million per year, correct?
13
      Α
           (Newell) That's right.
14
           So under your sensitivity analysis for this
      Q
15
           first scenario, there's actually a potential for
16
           higher Capacity Market benefits than LEI modeled
17
           using those 2020 dollars, correct?
           (Newell) Yes. We also said that that is not
18
      Α
19
           what we think is likely, but it is one of the
           cases that we tested and showed that that would
20
21
          be possible.
22
           Well, when you say it's not what you said is
      Q
23
           likely, I thought you said in your report in
24
           several locations that you were not taking a
```

1 position about whether any one scenario was more 2 or less likely than any other scenario. 3 Α (Newell) I think you're confusing scenarios and 4 sensitivity. 5 I understand that, but for purposes of 0 6 scenarios, that's your position, correct? 7 Α (Newell) Not exactly. We didn't put quantitative probabilities on them, and I 8 9 believe we did say in our report that we think 10 Scenario 2 is more likely than Scenario 1. 11 as for the sensitivities, when you're pointing 12 out the extreme value there, we talked about how that could be plausible, but we don't think it's 13 14 as likely. We're talking about, that higher number comes with what we call an extreme 15 16 assumption about how much it costs a new entrant 17 to be willing to enter the market. 18 Mr. Weiss, did you have a different opinion Q 19 because while Mr. Newell was saying no, you 20 seemed to be shaking your head yes? 21 (Weiss) No. I don't have a different opinion. Α 22 Okay. So I want to talk about a couple of the Q 23 issues that Mr. Pappas raised this morning with 24 you. With respect to Figure 18 from LEI's

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1
           report, that was Applicant's Exhibit 102, if we
 2
           can call that up, Dawn?
 3
               I think, Mr. Weiss, these questions were
 4
           directed to you. Mr. Pappas asked you about the
 5
           Ontario Trade Agreement which is number 4 on
 6
           this list; do you remember that?
           (Weiss) I do.
 7
      Α
           This is an agreement between the government of
 8
      Q
 9
           the Province of Quebec and the government of the
10
           Province of Ontario, right?
11
      Α
           (Weiss) I believe so.
12
           And isn't it correct that these two provinces
      0
13
           could agree to extend this agreement beyond its
14
           2023 expiration date?
15
      Α
           (Weiss) I assume they could.
16
           In fact, you have no information one way or the
      Q
17
           other about that, right?
18
           (Weiss) No, I don't, but I looked at what is
      Α
19
           stated in the source that is cited in that
20
           document, and it states nothing about any
21
           extension. Just states that the agreement ends
22
           in 2023.
23
           It's actually silent about that, right?
      0
24
           (Weiss) No, it says it ends in 2023.
      Α
```

1 Right, and it's silent about the possibility of 0 2 an extension. (Weiss) Sure. 3 Α And let's look at Footnote 40 on page 30 of 4 0 5 LEI's report. Sorry, Dawn. I don't have the 6 Bates number. So in Footnote 40, LEI says Hydro-Quebec's 7 Strategic Plan commits to increasing the 8 9 capacity of existing assets by 500 megawatts by 10 2025, correct? 11 Α (Weiss) That's what it states in the footnote. 12 I don't have the Strategic Plan in front of me so I don't know whether it states it in the 13 14 Strategic Plan right now. 15 0 If we assume that the Ontario/Quebec agreement 16 doesn't get extended, then this intention of HQ 17 to increase their capacity by 500 would offset 18 that, wouldn't it? 19 (Weiss) So it's hard to tell for me without Α 20 actually seeing what it says in the Strategic 21 Plan. 22 Did you read the Strategic Plan? Q 23 Α (Weiss) I did. 24 Do you recall seeing this in there? 0

1 (Weiss) I recall seeing 500 megawatts in there, Α 2 but I don't recall whether there are any 3 specifics around the 500 megawatts. 4 0 But certainly premised on this statement in 5 LEI's report, it would offset that, wouldn't it? 6 (Weiss) So, again, it's hard to tell without Α 7 seeing what those 500 megawatts are specifically referring to. And to just explain, right? 8 9 in LEI's Figure 18, there are other resources 10 that get added. 11 Q That's not what I'm talking about. 12 Α (Weiss) So without looking at the Strategic Plan 13 I don't know whether those 500 megawatts in the 14 Strategic Report refer to some of the resources 15 that are in Figure 18 That's all I'm saying. 16 Maybe we could do it this way. Would it Q 17 surprise you to learn that it's LEI's opinion 18 that those 500 megawatts based on this document 19 would be offset? 20 Α (Weiss) Can you repeat that question? 21 Would it surprise you to learn based on the HQ 0 22 Strategic Plan that it is LEI's opinion that if 23 the Ontario Trade Agreement were discontinued 24 those 500 megawatts would be offset based on

```
1
           HO's representation?
 2
      Α
           (Weiss) I don't want to have you repeat it
 3
           again, but I'm not really sure I understand your
 4
           question.
 5
           It's LEI's opinion that if those 500 megawatts
      0
 6
           in the Ontario agreement were discontinued, they
 7
           would be offset by HQ's intention to increase by
           500 megawatts as expressed here. Would it
 8
 9
           surprise you that that is LEI's opinion on this
10
           issue?
11
      Α
           (Weiss) Are you stating it as LEI's opinion?
                                                          Ι
12
           don't know whether that makes any difference
13
           whether I'd be surprised or not.
14
           It's a simple question. Yes or no.
      0
15
      Α
           (Weiss) I don't know whether I'd be surprised or
16
           not.
17
           Fair enough. And if the agreement is extended
      Q
18
           beyond 2023 and HQ carries through on its stated
19
           commitment to increase its capacity by 500
20
           megawatts, then in reality there would actually
21
           be an additional 500 megawatts of capacity
22
           available beyond what was calculated by LEI in
23
           Table 18.
                      Is that correct?
24
      Α
           (Weiss) So I think you're constructing a
```

1 hypothetical, and I think I can agree to a 2 hypothetical that resources might be added in an addition to what is included on Figure 18. 3 4 0 Okay. Now, Mr. Pappas also showed you Counsel 5 for the Public's Exhibit 597, and I think we 6 looked, Mr. Weiss, at your translation. 7 Mr. Pappas asked you about the line that states commitments to third parties. And asked you 8 9 whether LEI had included this in its calculation 10 of HOP's available surplus capacity. Do you 11 remember talking about that? 12 Α (Weiss) I do remember talking about that. 13 0 And you thought that LEI did not include this, 14 right? (Weiss) The 1275, I was not able to find that 15 Α 16 here since Figure 18 as I read it, only includes 17 HOP's domestic commitments which have two 18 components, commitments to Hydro-Quebec 19 Distribution, and on that table on line 11 in 20 Figure 18, a commitment for 94 megawatts to LCHM 21 and so it's not exactly overlapping, but this 22 exhibit here has the commitments to HQD as 1139 23 and it has 1275 megawatts of commitments to 24 other parties so that's clearly more than 94. Τ

1 was not able to find the difference between 1275 2 and 94 in Figure 18. And I believe that you said this morning, and I 3 Q think it's reflected on your translation, that 4 5 this is a projection of available surplus 6 capacity in the year 2016/2017 only. Is that right? 7 (Weiss) That's the projection for the winter of 8 Α That's correct. 9 2016/17. 10 So it's not a projection of capacity looking 0 11 forward. Only for this year, right? 12 Α (Weiss) That is correct. 13 And I think you correctly qualified that LEI's 0 14 analysis was looking at available surplus 15 capacity in 2021 and beyond, right? Remember 16 saying that? 17 (Weiss) That is correct. Α 18 So this Exhibit 597 doesn't account for changes Q 19 that have happened or planned since this 20 document was filed, correct? 21 (Weiss) That is also correct. Α 22 And again, would it surprise you that, if asked, Q 23 Ms. Frayer would say that this number includes a 24 number of commitments included in her Table 18,

```
and it also includes commitments which have
 1
 2
           expired, and, therefore, wouldn't belong in
           Table 18.
 3
           (Weiss) So far you're speaking about commitments
 4
      Α
 5
           and not about resources, but generally speaking,
 6
           that is potentially true.
 7
      Q
           Okay.
           (Weiss) That it includes commitments that may be
 8
      Α
 9
           already incurred but are not reflected in
10
           2016/17 or that exist in commitments in 2016/17
11
           may not exist in 2021.
12
           Are you aware that it includes a contract with
      0
13
           Vermont joint owners which has since expired?
14
           (Weiss) That what includes?
      Α
           Your numbers.
15
      0
16
           (Weiss) These are not my numbers.
      Α
17
           The numbers in this exhibit.
      Q
18
           (Weiss) I am not aware what is included in the
      Α
19
           1275 since the source document does not spell
20
           out what is included.
21
           So certainly if it included a contract with an
      0
22
           entity which has since expired, that would be
23
           relevant for this analysis, wouldn't it?
24
           (Weiss) It could be relevant.
      Α
```

1 And how about if it also includes forward sales 0 2 of capacity which have already been delivered and are, therefore, complete? Wouldn't that be 3 relevant to this analysis? 4 5 (Weiss) Yes, I'm not sure I fully understand Α 6 what you mean. I mean, if the table that you presented here in 7 Q your translation contained representation of 8 capacity sales in this time period which have 9 10 since been complete and no further obligation 11 exists going forward, that would certainly be 12 relevant in relation to the analysis that Ms. 13 Frayer did looking at 2021, right? 14 (Weiss) That would be relevant. Α And wouldn't it also be relevant if there are 15 0 16 commitments here which LEI actually did include 17 in its table such as, for example, on lines 11 18 and 14? 19 (Newell) I'm not sure either of us understood Α 20 your question. Could you please repeat it? 21 I think the premise underlying some of 0 22 the testimony was that you could not correlate 23 what you saw on this exhibit that you translated 24 with the table that Ms. Frayer presented, and my

```
1
          question to you is if it turns out that there is
 2
          a correlation, for example, if items 11 and 14
 3
          on Ms. Frayer's table do correlate, that would
          also be relevant to this analysis, wouldn't it?
 4
 5
           (Weiss) What do you mean by correlate?
      Α
 6
          I mean, if items 11 and 14 on her table actually
      0
          are included in these numbers. You said you
 7
          couldn't determine whether they were included.
 8
 9
          If they actually are included, that would
10
          certainly be relevant to the analysis, wouldn't
11
          it?
12
      Α
           (Weiss) So I'm sorry. I'm sort of stumped, I
13
          have to say. So those questions are
14
          complicated, and I don't know why they are.
15
      0
          It's a complicated topic.
16
           (Weiss) Yeah, it is. I agree. And in part this
      Α
17
          confusion or difficulty is caused by the fact
18
          that I really had a hard time breaking down
19
          Figure 18. So, in other words, the sourcing on
          this document is such that it is very difficult
20
21
          to follow what assumptions LEI actually made.
22
          And so we're going through what I did, and what
23
          this translation here represents is actually
24
          exactly the information that is contained in
```

1 some of the documents that LEI's report cites 2 to, and there's nothing else in those. 3 doesn't cite to any documents specifically that 4 would sort of provide some evidence or proof for 5 what you now posit as hypotheticals. 6 Let's go on to Exhibit 277 which Mr. Pappas also 0 7 showed you. And this is HQ's Strategic Plan for 2016 to 2020. Do you recall looking at this 8 9 document? 10 (Weiss) Yes. That is the Strategic Plan, by the Α 11 way. 12 Right. And he showed you page 9759 which we Q 13 have up here, and quoted some language stating, 14 quote, "The energy available to us is more than 15 the quantity required to meet Quebec's electric 16 needs." Do you see that? First paragraph? 17 (Weiss) Yes, I do. Α 18 And at the top of that page, it reads, in big Q 19 bold, "We have sufficient energy to supply 20 Quebec." Correct? (Weiss) That is what it says. 21 Α 22 Then we go to the following page. And it says Q 23 "However, we need more capacity during peak 24 periods." Right?

1 (Weiss) That is correct. Α 2 And isn't it correct that it's HQD as in dog Q 3 that's responsible for securing sufficient 4 energy capacity to meet Quebec's demand? 5 (Weiss) That is not what this slide says. Α 6 Well, actually this is referring to Hydro-Quebec 0 Distribution, isn't it? 7 (Weiss) Where does it say that? 8 Α 9 Well, I'll ask you then. Whose responsibility 0 10 is it to procuring capacity to meet Quebec's 11 needs? It's Hydro-Quebec Distribution, right? 12 Α (Weiss) That is correct. 13 Okay. So we do agree on that. 0 14 (Weiss) But hold on. So it's unclear that this Α 15 is a slide that states something specific to 16 HQD's capacity needs. This is a Strategic Plan 17 by Hydro-Quebec, period. And the reason why I'm 18 pointing that out is in that document, it also 19 speaks about the desire by Hydro-Quebec to 20 create generating resources for export which is 21 clearly not something that would be interesting 22 to HQD. 23 Right, but HQD meets its electric needs from 0 24 purchases through HQP and other independent

```
1
           power producers, correct?
 2
           (Weiss) That's correct.
      Α
 3
           So looking at this from HQD's perspective as it
      0
           relates to its own needs for Quebec, that isn't
 4
 5
           necessarily reflective of HQP's perspective
 6
           about overall capacity, right? They're
           different entities with different goals and
 7
           different needs, correct?
 8
 9
      Α
           (Weiss) As you stated, that's correct.
10
          And if you look at the same page in the blue box
      0
11
           it says, "whether to meet the needs of the
12
           Quebec market or to seize export opportunities
13
           we intend to, and it makes a couple of points.
14
           First of all, it says bring into service the
15
           last two Romaine generating stations, 600
16
           megawatts by 2020 and related transmission
17
           facilities. And then the next box says, "and
18
           undertake new projects to increase the capacity
19
           of some of our hydroelectric generating
           facilities." Right?
20
21
           (Weiss) Yes.
      Α
           And you would agree with me that LEI included
22
      Q
23
           Romaine in its analysis, right?
24
           (Weiss) It did.
      Α
```

1 0 And it discusses the 500 megawatt uprates as we 2 pointed to previously in that footnote 30, 3 right? (Weiss) Yes. It's helpful, by the way, to see 4 Α 5 it on the slide so yes, that's correct. 6 So in fact, HOP, Hydro-Quebec Production, will 0 7 have more capacity soon than what's reflected in Annex C for that winter of 2016/2017, right? 8 Ιt 9 makes that clear right on the slide. 10 Α (Weiss) So it makes it clear that it plans to 11 add resources relative to what's stated on the 12 Annex C document. 13 0 Okay. Mr. Pappas also showed you Counsel for 14 the Public Exhibit 599 which showed the cost of 15 various contracts that HQD had entered into, do 16 you recall that? 17 (Weiss) Yes. I do. Α 18 And he specifically focused on a contract for Q 19 500 megawatts with HQP; do you remember that? 20 (Weiss) I do. Α 21 And I think you said that the price that HOD is 0 22 paying under this capacity supply contract is an 23 indicator of the opportunity cost for capacity 24 sales of HOP, right?

1 (Weiss) I believe that's what I said. Α 2 And based on the price of this one contract, you Q 3 stated that the ISO New England market may not 4 be the best market for HQP to sell its capacity 5 surplus in the future; is that what you said? 6 (Weiss) I think that was Sam, but, no, so I Α think what I said is it's an indicator of the 7 value of capacity in Quebec recently. 8 9 And so I think I also said that I don't know how 10 the Market Monitor would look at this, but it is a piece of information that suggests that there 11 12 are opportunity costs for capacity in Quebec at 13 this point. 14 Well, it sounded to me like the implication of Q 15 what you were saying is that somehow this was 16 indicative of those opportunity costs, and it's 17 a piece of information that should be looked at 18 to draw conclusions about those opportunity 19 costs, right? (Newell) That's our inference, and if you look 20 Α 21 back at the Strategic Plan where you showed 22 that, first of all, "we" is used in a lot of 23 different ways there. Sounds like the 24 perspective of the distribution company, other

1 places sounds like the perspective of the 2 production company, but one of the we's said we 3 need capacity or we're short on capacity, and no matter who that is, even if it's the 4 5 distribution company, if they're going to still 6 be buying more contracts like this one, that would suggest that -- and if it happens to be 7 priced similarly to this one, that would suggest 8 9 that HQP would have opportunities to sell its 10 capacity to HOD at like \$10 a kilowatt month in 11 Canadian. And that's what we compared to the 12 prices in the New England market. 13 0 Well, that's what I want to ask you about. 14 would it surprise you that Ms. Frayer is not 15 actually aware of any other long-term capacity 16 contracts like this nor is she aware of any that 17 are planned? Is that surprising to you? 18 (Newell) I don't get surprised by a lot of Α 19 things. 20 So that wouldn't surprise you? 0 (Newell) I don't know what Ms. Frayer is aware 21 Α 22 of. Can you ask the question in a different 23 way? 24 0 Well, let's get an answer to that one first. Ι

take it doesn't surprise you. 1 2 (Weiss) I'm neither surprised or not surprised. Α 3 I don't have any sort of opinion on that. So now I'll ask you both directly as you set 4 0 5 here today, are either one of you aware of any 6 other long-term capacity contracts in Quebec like this? 7 (Weiss) I'm going to answer with no, but. 8 Α 9 we're not suggesting that there is an actual 10 procurement out there where we already know the 11 value of capacity to be a certain amount. What 12 we're trying to suggest is there's information contained in the submissions of HOD which are 13 14 cited in LEI's report, and in other HQ 15 documents, the Strategic Plan, that sort of paint a picture that the Province of Quebec 16 17 relative to its own hydro resources, especially 18 those of Hydro-Quebec, is in need of additional 19 capacity. And so there is some indication that 20 that capacity has value in Quebec. That's what 21 we're saying.

capacity contract in Quebec like this?

22

23

24

Q

Let's go back to my question. Am I correct that

neither of you are aware of a similar long-term

```
1
           (Newell) Do you mean here is one example, you're
      Α
 2
           saying do we know of a second example?
 3
           Yes.
      0
           (Weiss) I'm not currently aware.
 4
      Α
 5
           (Newell) And we are in the business where there
      Α
 6
           tends to be sometimes, you know, few
 7
           transactions and we take as an indicator when we
           see one. You know, power plant is sold --
 8
 9
           My question was just are you aware.
      0
                                                 It sounds
10
           like you're not. And my second question is if
11
           you're not aware of one that's presently in
12
           effect, are you aware of any that are planned.
13
           In early stages, in negotiations, contemplated
14
           in any way?
15
      Α
           (Weiss) So you're meaning new solicitations
16
           or --
17
           I mean a contract like this in Quebec?
      Q
18
           (Weiss) That was signed since this one was
      Α
19
           signed?
20
           Or is in the negotiation stage planned.
      0
21
           aware of one?
22
      Α
           (Weiss) No.
23
           So you and Ms. Frayer agree on that point.
      0
           that being said, if none of you know of any that
24
```

```
1
           are planned, if none of you know of any other
 2
           examples but this one, is it fair to say that
           the indicative value of this one contract is
 3
           really not very significant?
 4
 5
           (Weiss) No. It's not fair to say that.
      Α
 6
           Okay. Looking back at the HQ Strategic Plan,
      0
           page 2, Exhibit 277, I want to look at page
 7
           9760, Dawn.
 8
               In the third paragraph, it says, "Through
 9
10
           new energy efficiency programs and initiatives
11
           we can also shave up to 1000 megawatts from the
12
           peak capacity needs forecast for 2020."
13
           that?
14
           (Weiss) Yes, I do.
      Α
15
      0
           So doesn't this suggest that going forward the
16
           needs to procure that additional capacity isn't
17
           going to be necessary for a very long time?
           (Weiss) No. It does not.
18
      Α
19
           And why is that?
      0
20
           (Weiss) Because this, all this says is that it
      Α
21
           will shave off up to 1000 megawatts of capacity
22
           needs forecast. It doesn't say anything about
23
          how that capacity needs forecast evolves over
24
           time.
                  It just reduces the need for capacity by
```

1 up to a thousand megawatts. 2 And you would not call that a significant fact? Q 3 Α (Weiss) No, it's a significant fact, but let's 4 just say that over the same time frame the 5 capacity need increases by 5,000 megawatts, then 6 you would still need an extra 4000 megawatts. I'm not saying the 5,000 megawatts is a real 7 number, but I'm saying in isolation this does 8 9 not say that it eliminates the need for 10 Hydro-Quebec Distribution to procure additional 11 capacity to meet its own needs. 12 But what we know is there's a definitive Q 13 statement and plan to reduce capacity needs by 14 1000 megawatts, and what I hear you saying is 15 hypothetically there may be some, there may be 16 some corresponding increase. That's what you're 17 saying? 18 (Newell) So you can also at the first line of Α 19 this page, and it's not hypothetical. When you 20 talk about shaving off demand, it's always, you 21 have to ask the question, with respect to what? 22 Relative to what? So they have, they're telling 23 us they have growing needs, they're telling us 24 they're going to shave off a thousand. Does

1 that, does that leave you still net needs? 2 might. We can't tell from this. 3 Mr. Pappas also asked you this morning about Q your criticisms of LEI's production cost savings 4 5 calculations. Do you recall that? 6 (Newell) I recall when we talked about the Α 7 production cost calculation. And I believe that the actual production cost 8 Q 9 calculation numbers that LEI came up with are 10 confidential so I'm not going to talk about the 11 specific numbers. But it is true that Ms. 12 Frayer included an analysis of production cost 13 savings in her Original Testimony and report. 14 Right? The first one that was filed? 15 Α (Newell) Right. 16 And it's my recollection that when we talked Q 17 about that this, talked about this at the 18 Technical Session, you didn't express any 19 concerns about the production cost savings 20 benefit because I think you said it was tied to 21 the energy market price forecast, and as you 22 said today, you've adopted LEI's energy market 23 prices, does that sound familiar? 24 (Newell) Yes, but I need to correct you on Α

```
1
           something.
 2
      Q
           Okay.
 3
      Α
           (Newell) The original report had two different
           estimates of production cost savings.
 4
                                                   I didn't
 5
           like the one that said the cost of energy in
 6
           Ouebec is zero. That didn't make sense to me.
 7
           But there was another one, it was in a footnote,
           that recognized that energy in Quebec does cost
 8
 9
           something, and it put it at 25, and that's the
10
           one that I had in mind.
11
      Q
           We need to be careful about numbers, I think.
12
           And Julia or somebody will remind me if --
13
      Α
           (Newell) I apologize. Let me just point out
14
           these were hypotheticals.
15
      0
           Understood. I'm not sure we've run afoul of
16
           anything.
17
           I shouldn't have said it, but the numbers that I
      Α
18
           said were examples or hypotheticals.
19
           apologize.
          Here's what we know. Ms. Frayer did talk about
20
      0
21
           production cost savings and those benefits in
22
           her initial report, right?
23
           (Newell) That's right.
      Α
24
           And in all of the supplemental documents that
      0
```

1 you filed right up through April 17th, I don't 2 think you once made mention of or criticized her 3 description of those production cost benefits, did you? 4 5 (Newell) I don't think we really even addressed Α 6 production cost benefits because we didn't think 7 they were, they're not the question that we were being asked from the perspective of New 8 9 Hampshire customers. 10 Exactly. So if you had no concern with 0 Yes. 11 production cost benefits during that entire time 12 period, why suddenly did that concern arise 13 Why when you had a full opportunity to 14 address that issue multiple times did you 15 suddenly feel the need to address it today? 16 (Newell) You may recall that the reason it came Α 17 up was because of two things in LEI's 18 Supplemental Report. One was a table showing a 19 lot of categories of benefits indicated that 20 somehow we missed categories of benefits. 21 that was, so we had to explain why that's not 22 additive to the market, the energy market 23 impacts we already counted. 24 The second reason it came up is because

there was a point in LEI's Supplemental Report 1 2 that we used this 1.6 multiplier in some other 3 analysis and that maybe that should apply here. 4 And I had to disagree. 5 Understood about the 1.6, and that was a new 0 6 criticism, but the table simply elaborated on the benefits they talked about earlier. 7 sharpened the descriptions, right? The benefits 8 9 they already accounted for were there in those 10 original reports. 11 Α (Newell) As I said before, I don't think they 12 even scored their own evaluation right. I think 13 there were categories there they didn't 14 evaluate. But the production cost one that you 15 said? Sure, that was very plain. That was in 16 LEI's original report. 17 So I want to move on now to capacity market Q 18 benefits. And I think we all agree that in 19 order for NPT to create capacity market 20 benefits, they have to both qualify for and 21 clear the Forward Capacity Auction, right? 22 Α (Newell) Correct. 23 And in order for NPT to qualify 1000 megawatts 0 24 for the Forward Capacity Auction, HQ has to have

1 1000 megawatts of excess capacity available to 2 bid, right? 3 Α (Weiss) So just to sort of be clear on the definitions, you mean HQP? 4 5 Yes. Yes. 0 Sorry. 6 (Newell) As we described in here, there are Α 7 several ways they could qualify. That would be 8 one. 9 0 Okay. And in order for NPT to clear, it has to 10 be able to bid into the Auction at or below the 11 Clearing Price, right? 12 Α (Newell) Yeah, that's right. 13 And I want to go to your Supplemental Report, 0 14 page 3, and on this highlighting, the first 15 thing that you say is LEI's assumption that NPT 16 qualifies and clears in ISO-New England's 17 capacity market is possible but unsupported and 18 perhaps optimistic, right? 19 (Newell) Yes. I think that's a good Α 20 description. 21 And then in the next, going down to the next 0 22 point, you say LEI has not yet provided any 23 basis for its critical assumption that NPT 24 capacity will qualify and be allowed to offer at

```
1
           prices below X, and you've blocked that number
 2
           out because that's confidential.
                                              It's the
 3
           minimum price in the analysis, right?
 4
      Α
           (Newell) Your question is?
 5
           I'm just walking --
      0
 6
           What is your question though?
      Α
           I'm just walking through what you said here to
 7
      Q
           be able to --
 8
 9
           (Newell) But tell me again what is the question.
      Α
10
           It says what it says. That's the question.
      0
11
      Α
           (Newell) It does say what it says.
12
           Okay. I've got to make sure we're on the same
      0
13
           page here. And then finally, you say it's
14
           possible that NPT could qualify and clear, but
15
           there's no guarantee that it will, right?
16
           (Newell) That's one of the biggest uncertainties
      Α
17
           facing the market, not just this Project.
18
           So I want to start by talking about qualifying,
      Q
19
           and I will pull up, and I think I'll say I think
20
           it's Exhibit 145. It's your Supplemental Report
21
           redacted. And I want to look at page 9, the
22
           second paragraph.
23
           (Newell) Just a second.
      Α
24
           You said the Applicants have not yet presented
      0
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1 evidence in this proceeding about whether or how 2 they will demonstrate to ISO New England that 3 they have sufficient excess capacity to meet the qualification criteria, right? 4 5 (Newell) Yes, and it was, remember, this was in Α 6 Wait. Yeah, this was at the time we April. 7 wrote this we had not seen anything which very much puzzled me because I view this as a really 8 9 threshold question, and the topic hadn't been 10 even addressed in the original report. 11 Q And then on page 12 in the first full paragraph, 12 with regard to HQ's available capacity, HQP's 13 available capacity needed to qualify for the 14 Forward Capacity Auction, you concluded, in sum, 15 the evidence we were able to identify suggests 16 that Hydro-Quebec may currently be short on 17 capacity in the winter peak period, right? (Weiss) That's what it says. 18 Α 19 So I want to go now to Applicant's Exhibit 102 A 0 20 which is the nonconfidential version of LEI's 21 Rebuttal Report, and we've talked about this a I think you recall that LEI addressed 22 fair bit. 23 the issue of supply in its Rebuttal Report by 24 specifically focusing on Hydro-Quebec

Production. And I want to look at page 30, first full paragraph.

What LEI said was they concluded that HQP surplus capacity generation available for firm exports to neighboring jurisdictions will equal at least 1527 megawatts from 2021 onward during the Quebec control areas' winter system peak period, right?

- A (Weiss) That's what it stays there, yes.
- On page 61, first full paragraph, LEI again concludes, "In 2021 HQP has more than sufficient excess capacity not only to provide 1000 megawatts over Northern Pass but also to provide capacity over the Phase II and Highgate interfaces.

MR. PAPPAS: Objection. What we've been doing over the last 3 or 4 minutes, and I've been patient, is simply reading either these gentlemen's report and asking if that's what it says or reading LEI's report and saying if that's what it says. We haven't gotten to any questions. We're just simply repeating what's either on Direct or Supplemental.

PRESIDING OFFICER HONIGBERG: That does

seem to be a thing people do around here. Mr.
Needleman?

MR. NEEDLEMAN: I think I have been asking questions, and I certainly appreciate
Mr. Pappas's concerns, and what I'm trying to do is to stay narrow and focused on these issues which I think for everyone are quite complicated.

PRESIDING OFFICER HONIGBERG: And I've kind of been expecting that at some point you would get to a punch line associated with these questions about what the documents say. Am I correct?

MR. NEEDLEMAN: You are.

BY MR. NEEDLEMAN:

Q So I want to pull up now Figure 18 side by side with these which we've talked about this morning. This is the document that was not available to you when you wrote your April 7th report. It's since become available. We've heard what you've said this morning. Okay? First of all, based on the information presented here, you would agree that LEI has concluded that there's 1527 megawatts of excess capacity,

1 right?

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- A (Weiss) So I agree that LEI has concluded which is not the same thing as Hydro-Quebec having that excess capacity, just to be clear.
- And you've in various ways tried to pick at this document, and we've pushed back at that. I guess my question to you is if you don't believe that LEI is accurate here about this 1527 megawatts, what do you think is the right number?
- Α (Weiss) So I don't know what the right number is, and, you know, and I think that is one of the problems in this proceeding that basically all parties, including LEI, I'm going to say the Applicant, seems to be trying to figure out what Hydro-Quebec Production's actual or projected capacity surplus is. So we have, you know, we and LEI looked at publicly available documents. We can get into, you know, whether our conclusions from those publicly available documents differ or not and why, but presumably, there are parties that could shed some light on Hydro-Quebec. And Hydro-Quebec this. Production in particular. So part of the

1 confusion has to do with this process not having 2 produced specific information that would clarify this. 3 You keep talking about confusion. You'd agree 4 0 5 that Ms. Frayer is not the least bit confused. 6 You understand that she is completely confident in these numbers. You just don't agree with 7 them, right? 8 9 MR. PAPPAS: Objection. Asks him to 10 speculate on what Ms. Frayer believes or doesn't 11 believe. 12 MR. NEEDLEMAN: I'm not sure it's 13 speculation at all. I think it couldn't be more 14 clear what her position is. (Weiss) So it's entirely possible, I don't know 15 Α 16 whether Ms. Frayer is completely convinced or 17 not, I am not convinced by looking at these 18 numbers. 19 You're not? 0 20 (Weiss) Right, and in the end I think this Α 21 process ought to lead to an objective assessment 22 of whether the evidence is there to support 23 there being enough capacity or not or at least 24 enough projected capacity or not.

```
1
           Okay. Let's talk about clearing the Forward
      0
 2
           Capacity Auction. With regard to clearing the
           FCA, what we're talking about is the MOPR,
 3
           right? It's meeting that minimum offer floor
 4
 5
          price, right?
 6
           (Newell) Mostly. I mean, if they also had high
      Α
           opportunity costs and said hey, we don't want to
 7
           clear below $8 or something, that could be an
 8
 9
           issue, too.
10
           That's actually reflected in one of your charts,
      0
11
           right, which we'll talk about in a minute.
12
               The minimum offer floor price is the price
           that the Internal Market Monitor at ISO New
13
14
           England will set as the minimum price that NPT
           has to bid, right?
15
16
      Α
           (Newell) Right.
17
           And for NPT to clear the Forward Capacity
      Q
18
           Auction, it has to bid above the MOPR but also
19
           below the ultimate Clearing Price of the
20
           Auction, right?
21
           (Newell) Yes. That's right.
      Α
22
           And Brattle performed a MOPR calculation for the
      Q
23
           NPT Project, right?
24
           (Newell) Several calculations.
      Α
```

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1
           So I want to pull up from your April 17
      0
 2
           Supplement, page 16, Table 1. I assume this is
 3
           familiar to you?
 4
      Α
           (Newell) Yes.
 5
           Okay. So in this table, my understanding is
      0
 6
           that the numbers highlighted in green represent
 7
           the MOPR scenarios where your analysis found
           that NPT would likely clear, is that right?
 8
 9
      Α
                 That's right.
           Yes.
10
           (Newell) And looking at the second line down,
      0
11
           for example, we see a MOPR of $4.40, right?
12
      Α
           (Newell) Right.
           So this reflects a scenario where the offer is
13
      0
14
           based on existing generation with a high energy
15
           cost, right?
16
      Α
           (Newell) Right.
17
           And this represents the high end of the scenario
      Q
18
           where NPT is supplied by existing year-round
19
           surplus generation, correct?
20
      Α
           (Newell) Correct.
21
           All right. I want to call up Applicant's
      0
22
           Exhibit 128. We'll come back to that in a
23
          minute.
24
               This is a letter from Richard Cacchione.
```

1 I'm sure I didn't pronounce that name correctly. 2 It was written on June 6th, 2016, and he is the 3 President of Hydro-Quebec Production, and this letter was written to the United States 4 5 Department of Energy. Have you seen this 6 document before? (Newell) I don't think so. 7 Α In this letter, Mr. Cacchione in the highlighted 8 Q 9 portion right there, the President of 10 Hydro-Quebec Production, says no new hydro is 11 being developed to provide power for Northern 12 Pass. Do you see that? 13 Α I see it. 14 Now, I want to go back for a minute to your Q table, page 16, Table 1. So based on the 15 16 statement you just saw from the President of 17 Hydro-Quebec Production, wouldn't you agree that 18 at least your third scenario which posits that 19 new generation is needed doesn't apply? 20 Α (Newell) No. Not necessarily. The thing is, 21 we've seen so many different statements. We've 22 seen the statement that, you know, just when we 23 just went through the supply scenario as we went through that they're going to add 500 megawatts 24

1 of capability. You know, that -- we've seen 2 different things. In the Strategic Plan that 3 they'll add capability. So sure. Given that 4 assumption that there's no new hydro that has to 5 be built to support the capacity year-round, 6 then I would say that column, in fact that that column in our analysis, in fact that, the one 7 you pointed to, would apply. Again, there's 8 9 still uncertainty even around that number. We're guessing. The Market Monitor will do his 10 11 own calculation, but this is our version, but 12 yes, that would apply under that assumption. I 13 just can't say that assumption is necessarily 14 true. 15 0 You said column. I want to clarify. So let me 16 ask the question again just to be clear. If Mr. 17 Cacchione, the President of HQP, is correct, 18 then the row on your chart, the bottom one that 19 says new generation needed to support year-round 20 surplus, that wouldn't be applicable if he's 21 correct, right? (Newell) So, you know, I think you have a good 22 Α 23 point about this. 24 (Weiss) Could you sort of go back to the Α

1 previous exhibit with the letter, please? 2 Dawn, could you pull that up? Q (Weiss) Great. So I think what's important here 3 Α and we have already touched upon this a couple 4 5 of times today is it may indeed be the case that 6 Hydro-Quebec is not going to build new hydrogeneration specifically for this Project. 7 It could be instead that Hydro-Quebec has a 8 9 policy, that maybe the Province of Quebec even 10 has a policy, to develop hydro resources over time to serve export markets and export 11 12 opportunities. And those new hydro facilities 13 in the Strategic Plan, it actually said in 2020 14 we're going to figure out our next big 15 opportunity. Those hydro facilities will 16 clearly have costs, construction costs. 17 The question is whether in the MOPR 18 analysis, the Market Monitor, you know, the 19 question is how the Market Monitor would look at 20 those costs associated with just generically or 21 generally building new hydro facility to serve 22 the export market. Even if you cannot make a 23 specific link to the Northern Pass Project. 24 0 I think we've gotten away from my question.

1 (Weiss) No. It's exactly that. Α 2 Good. Well, let's go back to it then because I Q 3 need an answer. So pull the chart up, please. I'm looking at your third line. New generation 4 5 needed to support year-round surplus. If Mr. 6 Cacchione, the President of HOP, is correct, and that no new generation is needed for Northern 7 Pass, that's not applicable, is it? 8 9 Α (Weiss) Wrong. That's what Dr. Weiss was just 10 explaining is that just because you don't build 11 a new hydro specifically for that project 12 doesn't mean the Market Monitor would view this as being oh, that's all sunk costs, existing 13 14 capacity, not for this purpose. The Market It's not 15 Monitor might say oh, look at that. 16 one-for-one tied. You're not building the new 17 dam for this Project, but you have a policy of 18 building the dam, exporting, building some dams, 19 exporting. That's expensive capacity. 20 might decide to include, therefore, the cost of 21 new generation in the MOPR. That would put us 22 right on the bottom row to answer your question. 23 You think the Market Monitor might take into 0 24 account the statements of HQP when they're

1 making those sorts of decisions? 2 Α (Newell) You know what? Rather than doing one MOPR calculation, we did many, and the reason is 3 we don't know what the Market Monitor will do. 4 5 They have not addressed this particular 6 situation before. They will have a lot of complicated issues they'll have to work through. 7 And we can only guess how they'll deal with 8 9 those. 10 Lets go back to the letter on page 2, Dawn. Ι 0 11 want to look at the second to last paragraph, 12 last sentence. Just highlight the last 13 sentence. Hydro-Quebec currently has. 14 So, again, this is Mr. Cacchione. He says, 15 writing to the US Department of Energy, 16 Hydro-Quebec currently has energy surpluses that 17 are more than sufficient to supply the necessary 18 power over the new transmission line. 19 So do you think that an objective third 20 party reading this letter could look at your 21 Table 1 on page 16 and conclude that NPT could 22 be supplied from the first category which you 23 style existing year-round surplus? 24 Objection. That calls for MR. PAPPAS:

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1
           speculation.
 2
               PRESIDING OFFICER HONIGBERG: Overruled.
 3
           You can answer.
           (Newell) So first of all, you may have, I don't
 4
      Α
 5
           know, is that the sentence you intended to
 6
          highlight?
 7
      Q
           Yes.
           (Newell) We have no doubt that there's energy to
 8
      Α
 9
                  The question is capacity. It's ability
10
           to always be able to provide power over that
11
           line including in the winter when Quebec has its
12
           greatest needs.
13
      0
          Understood. And this statement is completely
14
           consistent with LEI's analysis, isn't it?
15
      Α
           (Newell) This statement has nothing to do with
16
           LEI's analysis of capacity. Energy is different
17
           from capacity.
18
           You didn't do any analysis showing that they
      Q
19
           don't have the excess capacity, right?
20
           you just said it's uncertain.
21
           (Newell) It's uncertain.
      Α
22
          Right.
      Q
           (Newell) And I also have to correct that when
23
      Α
24
           you pointed out it's only about Romaine and that
```

1 was built a while ago or decided to build, 2 there's, I think you also referred to this 3 Footnote 40 in the LEI report that refers to and 4 the Strategic Plan that refers to increasing the 5 capacity of existing assets. I don't know how 6 much capital they need to spend to expand the capacity of existing assets, but it's clearly 7 not only, if that's true and I do, it's not just 8 9 Romaine. 10 Let's go back to your April 17 Supplemental 0 11 Report, the table again, page 16, Table 1. Both 12 your analysis and LEI's analysis projected Clearing Prices for the FCA that are 13 14 confidential, right? 15 Α (Newell) Right. 16 And I'm going to try to avoid getting into the Q 17 specifics of those. I'm just going to ask you a 18 couple of general questions. 19 The point we agreed on earlier was that for NPT to clear the Forward Capacity Auction it has 20 21 to bid above the MOPR or the floor price but 22 below the ultimate Clearing Price of the 23 Auction. Right? 24 Α (Newell) Right.

1 Your \$4.40 floor price that we see in this chart 0 2 is lower than the Clearing Price in each of the 3 scenarios that you confidentially modeled, 4 correct? 5 (Newell) Yeah, that's right. That why we put Α 6 in green those would easily clear and have the capacity market benefits. 7 And it's also lower than the clear price 8 Q 9 estimated by LEI, right? 10 Α (Newell) Right. 11 0 So based on the numbers we just talked about, 12 the information from Mr. Cacchione, everything 13 else that we went through, in those scenarios 14 NPT would clear; isn't that correct? 15 Α (Newell) Yes. That was our point. 16 Q On page 17 when you calculated your MOPR as we 17 talked about this morning, you also included the 18 cost of the Canadian portion of the transmission 19 line, right? (Newell) Yes. We did. 20 Α 21 And I think in your report at the time you said 0 22 those costs were somewhere around 450 million US 23 and I think this morning, Mr. Weiss, you said it 24 was closer to 500 now with the current exchange

Do you

1 rate. 2 (Weiss) 600 million Canadian dollars roughly. Α 3 Ballpark, right? So I assume you're both aware Q 4 that when Ms. Frayer testified and was being 5 questioned by Mr. Pappas regarding the 6 constructing the Canadian portion of the line, her opinion was that it should not be included 7 for purposes of the MOPR calculation. 8 know that? 9 10 Α (Newell) I do know that's her opinion. 11 puzzled me. 12 Okay. Let's look at it. I'm going to pull up 0 13 transcript from Day 13 Afternoon, page 88, line 14 11. 15 16

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So Mr. Pappas asked Ms. Frayer, would you agree with me that when the Internal Market Monitor looks at the capital costs necessary to deliver 1000 megawatts of capacity for the Forward Capacity Auction, that the Internal Market Monitor is going to include the cost of the 79 kilometer transmission line as part of the capital costs and she said no, I don't agree with that. Right? That's what we were just talking about.

- 1 Α (Newell) Yes. 2 Then on page 89, line 18, she explains her Q 3 reason. She says I've agreed that it's 4 necessary, but it's not necessary to be 5 reflected in the MOPR because of the way that 6 this investment is being funded. This 7 investment is going to be funded through existing transmission tariffs, and those 8 9 transmission tariffs would have to be paid for 10 by HOP to HOT if they were going to ship power 11 to New England over Northern Pass or if they 12 were going to ship power or for that matter sell 13 capacity and then ship power to New York or 14 Ontario or to any external market using the 15 point-to-point tariff that HQP currently has in 16 its existence. HQT. Do you see that? 17 (Newell) I see the text. Α 18 When you offered your opinion this morning, Q 19 saying you disagree with Ms. Frayer's conclusion 20
 - on this issue, did you have this specific rationale in mind?

 A You know, to tell you the truth, I've always been, I was confused by what LEI said in its report, and what it said here. I was actually

21

22

23

I told

- 1 there sitting right where I think Tom is during 2 this. And it just doesn't make any sense to me. 3 And I'll tell you, we acknowledged the many things we don't know --4 5 I just asked you if you had it in mind. 0 6 (Newell) What's the "it"? Her argument? Α Her 7 argument never made sense to me. So your testimony is you don't understand her 8 Q 9 argument on this issue. 10 Α (Newell) I'll tell you her argument in this case 11 is to me is, it just doesn't make sense. Ι 12 mean, it's not that this is an area unfamiliar to me. You need to understand I have worked for 13 14 the Market Monitor. I have, for them, produced 15 the offer review trigger prices that are used for the Minimum Officer Price Rule. 16 They were in its tariff. I know about this stuff. 17
 - Monitor will do. About this, I am confident the Market Monitor will view this, if it's part of the Project, if this is transmission that is

you about things that I don't know the Market

Frayer's explanation to me was nonsense.

part of this Project, those costs get included.

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22

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Q You say you know about this stuff, but you just

1 got done testifying a little while ago that this 2 is an unusual Project, that we don't know what the Market Monitor is going to do. So how can 3 4 you know what the Market Monitor is going to do 5 and you know about this stuff sometimes but 6 other times you don't know about it? (Newell) Well, you can't say that. 7 Α You just said it though. 8 0 9 (Newell) There are different components of this. Α 10 So when you talk about the hard costs, that's 11 easy. I mean, they built this line. That is 12 not the part that is unusual and new. 13 would be unusual and new is how do you think 14 about the generation costs in a place where is 15 it completely clear they built the generation 16 for this Project? There are a number of aspects 17 that are uncertain. How it might treat the 18 clean energy aspects, but about this, no. 19 hard costs of the equipment to make this Project 20 happen, that's not uncertain. Those get 21 included. 22 Q So when you say that Ms. Frayer's argument 23 doesn't make sense, do you mean you understand

it and you don't agree with it or do you mean

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1
           you don't understand it?
 2
           (Newell) I think I understand what she was
      Α
 3
           trying to say. That it's somehow, that the way
           it was getting paid for, it's not relevant
 4
 5
           costs, and I disagree with that.
 6
          All right. So given that you think you
      0
 7
           understand what she was saying, explain why you
 8
           disagree with what she was saying here.
 9
      Α
           (Newell) This language is not even very
10
           specific.
                      I mean --
           I'm not asking you to critique the language.
11
      Q
12
           You told me you understand it. So based on your
13
           understanding, tell me why she's wrong.
14
           (Newell) Can we go back up to one page above.
      Α
15
      0
           Sure. Can you put them side-by-side, Dawn, so
16
           he can see both of them together?
17
           (Newell) And actually, before we get into the
      Α
18
           words, can I ask you a question for a second?
19
                It's my turn to ask questions.
      0
20
      Α
           (Newell) All right.
21
           After we're done, we can talk.
      0
           (Newell) Okay. But can I read it first?
22
      Α
23
           Absolutely.
      0
24
      Α
           (Newell) Wait. That was a question.
                                                          Ι
                                                  Sorry.
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didn't mean to ask you a question.

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- Q Dawn, can we put them side by side so he can see the complete statement?
 - A (Newell) Yeah, so actually, go back up, all I need is, if you go back up to this page right here. Okay. Let's look at the next one, too.
 - Q So her answer is the bottom of 89 and the top of 90.
 - (Newell) Yes. And so let me tell you what I was Α disagreeing with. First on page 89, where it says -- so start even with the question. this 79 kilometer transmission line necessary to provide a thousand megawatts of power. I assume that means associated with Northern Pass. And the answer was that that is, yes, that's necessary. So it is part of the Project. But somehow it's not, it shouldn't be reflected in the MOPR because of the way this investment is funded, and what I'm telling you is the Market Monitor doesn't care how an investment was The hard costs get included, and that funded. is the most important element of the MOPR. Ιt is there specifically to make sure that you don't have an uneconomic project coming in at

1 low cost because somebody else is funding part 2 of it. For example, through some kind of a 3 subsidiary or an arrangement perhaps like this. So I don't even need to read the rest of 4 5 That is, you know, again, this is not an it. 6 area of doubt, given the agreement that this is 7 part of the Northern Pass Project. You know, if we were talking about some transmission 8 9 somewhere that was going to be needed in any 10 case, it really doesn't have anything to do with 11 Northern Pass, that's fine. 12 All right. So let's sharpen this issue, and Q 13 then I'm going to move on. Obviously, you and 14 Ms. Frayer have a pretty extreme disagreement 15 about this. Okay? I want you to assume for a 16 moment that Ms. Frayer is correct. Okay?

million, should not have been included in

Brattle's MOPR calculation, then the minimum

offer floor price you calculated would be lower,

right?

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A (Newell) Given that very strong assumption, yes.

she is, and that 450 million, maybe now 500

Q And in turn, if it's lower, that means that it would further enhance Northern Pass's chances of

1 clearing, correct? 2 Α (Newell) Yes. And I actually have to give you a number here. How big a difference would it 3 make? So every number in this table includes 4 5 the cost of the HO of the Northern Pass 6 Transmission Project. As it should. 7 Q Right. (Newell) Oh, you think so? 8 Α 9 Remember, no questions. 0 10 Α (Newell) Oh, right. And if you were to, if you wanted a version of the table that excluded that 11 12 part of the Project, it's easy. It's just this 13 table in every instance minus about \$4 a 14 kilowatt month. That's how much the HO piece of the transmission contributed to it. 15 16 All right. So now let's try to zoom out here Q 17 for a minute. We've seen that you and Ms. 18 Frayer have pretty strong disagreements about 19 whether HQ has sufficient excess capacity to bid 20 into the FCA, and we've looked at the very detailed and complicated assessments that you've 21 22 both done on this issue. 23 You agree with me that up to this point in 24 time, HQ has invested money to permit and build

1 the Canadian interconnection for Northern Pass, 2 right? 3 Α (Newell) Sorry. I don't know. You have no idea whether HQ has been investing 4 0 5 money for the lengthy permitting process going 6 on in Canada? (Newell) You know, I just have to say I don't 7 Α know their role and how much they were paying. 8 9 I would be surprised if they're not putting in 10 some, but I just don't have the info. 11 Q You think it's a pretty fair assumption that 12 they're spending money up there to do this? 13 Α (Newell) That would surprise me. 14 And they're certainly investing money in the US Q 15 side through the TSA, right? 16 (Newell) I just don't know what they're putting Α 17 in monetarily. So, first of all, you know, just 18 can't say anything specifically. I would say 19 probably. But development costs, they cost 20 nothing compared to the cost of a Project. 21 There are lots of Projects, lot of clients of 22 mine that send money, including on us, to 23 consider developing a project, and then, you know, sometimes they happen, more of the time 24

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1
          they don't. You know. But they are spending
 2
          money, a little money in the development stage.
 3
          You actually, you don't know how much, and it
      Q
 4
          probably surprise you to know how much, wouldn't
 5
          it?
 6
           (Newell) I just don't know, but it's not like
      Α
 7
          laying down line.
          And, in fact, to this day, HQ is continuing to
 8
      Q
          invest money in this Project, both in the US
 9
10
          through the TSA and in Canada; fair to say?
11
      Α
           (Newell) Don't know but I'll go with it.
12
          Okay. And you and Ms. Frayer may disagree about
      0
13
          what the excess capacity that HQ has available
14
          is, but you'd agree with me that HQ knows what
15
          it is, right?
16
           (Newell) So I think there were two questions
      Α
17
          there. Was one of them that HQ would have by
          far the best information on its --
18
19
      Q
          Right.
20
           (Newell) -- total supply. But I don't know if
      Α
21
          it was a question. You said we disagree.
22
           just have to correct something you said.
                                                     It's
23
          not that LEI says it's one number, and we say
24
          nope, it's another number. We say absent a
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1 presentation from HQ, we're only, we and LEI, 2 too, are only able to patch together, if you look at their Table 18, lots of different 3 4 You know, did you capture all the sources. 5 elements that will be there? 6 Understood. 0 (Newell) Our point is we don't do. 7 Α You don't know. LEI thinks they do know. 8 Q 9 Regardless of those two things, we can agree 10 that HO probably has a pretty good idea, right? 11 Α (Newell) The best idea, keeping in mind that 12 even they face uncertainties about their future 13 demand, whether they can achieve that energy 14 efficiency, that's the distribution side, but 15 they have the best information. 16 So looking at all of this then from a common Q 17 sense perspective, given that HQ has this 18 information, given that HQ has been 19 investigating the resources it's been 20 investigating for a long time now to do this 21 development both on the US side and the Canadian 22 side, just from a common sense perspective, you 23 think it makes any sense that they'd be 24 investing all of these resources if they weren't

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          pretty confident that they had the access
 2
          capacity to clear the market?
               MR. PAPPAS: Objection. That calls for
 3
 4
          speculation.
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               MR. NEEDLEMAN: I don't think it does.
                                                        Τ
 6
          think the whole case is about this issue.
 7
               PRESIDING OFFICER HONIGBERG: Overruled.
 8
          They can answer.
 9
      Α
           (Newell) So the thing you need to understand is
10
          even though for New Hampshire this capacity
11
          market thing is what we're all looking at
12
          because that's where it might lower prices in
13
          the market, that's not the purpose of the
14
          Project. The purpose of the Project is
15
          something else. It doesn't even necessarily
16
          have to do with capacity.
17
          I think -- can we go back to my question?
      Q
18
               MR. PAPPAS: No, I think he's answering
19
          your question.
           (Newell) No. I think that's exactly your
20
      Α
21
          question. There's plenty of reason. So, you
22
          know, the Mass. RFP, as we've discussed before,
23
          I don't think that even includes capacity.
24
          mean, this is about, this is about can you get,
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can you get low cost clean energy some, you 1 2 know, from Canada. And that, it's always been 3 about energy, it's been about clean and it's not 4 a foregone conclusion that, of course, you 5 wouldn't do this without capacity. That's just 6 not the case. Capacity has incremental cost to provide it. I can't draw those --7 This Project has been going on for about 7 or 8 8 Q 9 years, and the Mass. RFP only came along in the 10 last year or so, correct? Yes or no? 11 Α (Newell) Sure, but it's no different from the 12 track record of all clean energy procurements. 13 I mean, the states have been doing clean energy 14 procurements for several years. They don't even 15 have a capacity component. It's either energy 16 or RECs or both. 17 Let's come back to my question, and you can Q 18 answer it anyway you want. 19 Given the importance of capacity in a 20 Project like this, given the fact that HQ has 21 been investing the time and the resources 22 they've invested, do you think from a common 23 sense perspective it makes sense they would have

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done all that if they weren't pretty confident

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          that they could clear?
 2
               MR. CUNNINGHAM: Mr. Chair, it's Art
 3
          Cunningham.
               PRESIDING OFFICER HONIGBERG: Mr.
 4
 5
          Cunningham.
 6
               MR. CUNNINGHAM: I object.
 7
               PRESIDING OFFICER HONIGBERG: On what
 8
          grounds?
 9
               MR. CUNNINGHAM: Hydro-Quebec should have
10
          been a party to this docket so we could have
11
          these questions of the source. This is all
12
          speculation and secondary information.
13
               PRESIDING OFFICER HONIGBERG: So you don't
14
          want them to answer this question?
               MR. CUNNINGHAM: I think it's an
15
16
          objectionable question because it's based on
17
          speculation, and a party that is necessary to
18
          this docket is not in this docket.
19
               PRESIDING OFFICER HONIGBERG: Okay.
20
          Overruled. Mr. Pappas, you wanted to say
21
          something?
22
               MR. PAPPAS: I was going to say my same
23
          objection.
24
               PRESIDING OFFICER HONIGBERG: You think
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1 Hydro-Quebec should be here, too? 2 MR. PAPPAS: No. My same objection as I made before. 3 PRESIDING OFFICER HONIGBERG: I understand, 4 5 and we're going to see if we can, we're going to 6 let them have this last discussion which I think 7 is the last discussion anyway. (Weiss) So I'll try another way at this. 8 Α 9 let's just sort of assume that Hydro-Quebec has 10 spent a fair amount of money on basically 11 development costs, but that does not by itself 12 mean that LEI's or our assessments of what 13 capacity market impact that would have are 14 relevant. 15 So this is a Project that's developed, and 16 it will have private benefits to the parties 17 that are involved. Right? The Project will 18 sell some combination of energy, potentially 19 capacity, potentially clean energy attributes. 20 It will be, there are spreadsheets, lots of 21 spreadsheets, I assume, that will calculate the

Now, if they consider the revenues from the

revenue streams and compare that to any cost

that might occur.

22

23

Project if it's built sufficient to justify the costs, then they will continue to invest. As part of that, they have to get approval by this Committee, right? And this Committee is less interested in whether or not the parties to Northern Pass make money. They're interested in whether it produces benefits to New Hampshire and New Hampshire customers and ratepayers. And it's really there that this capacity story enters very that, you know, whether or not this Project qualifies, clears, and has corresponding impacts on capacity prices in New England is relevant only at that level.

So we don't know whether it's ultimately even in Hydro-Quebec's interest to sell capacity, as we discussed earlier. It could be that capacity that they have is more valuable in Quebec than it is in New England. So it's entirely possible that this Project makes sense for the parties to this Project completely independent of whether or not it qualifies and/or clears in the New England capacity market.

O Are you done?

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1
      Α
           (Weiss) Yes.
 2
           I think I have my answer. Thank you.
      Q
                                                   All set.
 3
               PRESIDING OFFICER HONIGBERG: All right. I
 4
           think it probably doesn't make sense to have the
 5
           Committee ask its questions, and then Mr. Pappas
 6
          do whatever Redirect he has. That's in part
 7
           because the Witness Panel that will start after
 8
           this Panel won't be starting until after ten
 9
           tomorrow morning anyway. So we're going to
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           adjourn for the day, return at 9 o'clock, we'll
11
          have Committee questions, and then redirect from
12
          Mr. Pappas.
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                 (Hearing recessed at 5:01 p.m.)
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CERTIFICATE

I, Cynthia Foster, Registered Professional Reporter and Licensed Court Reporter, duly authorized to practice Shorthand Court Reporting in the State of New Hampshire, hereby certify that the foregoing pages are a true and accurate transcription of my stenographic notes of the hearing for use in the matter indicated on the title sheet, as to which a transcript was duly ordered;

I further certify that I am neither attorney nor counsel for, nor related to or employed by any of the parties to the action in which this transcript was produced, and further that I am not a relative or employee of any attorney or counsel employed in this case, nor am I financially interested in this action.

Dated at West Lebanon, New Hampshire, this 6th day of November, 2017.

Cynthia Foster, LCR